



NetMHCII 2.0 Server - prediction results

Technical University of Denmark

Input is in FSA format
NetMHCII version 2.0.

Strong binder threshold 50.00. Weak binder threshold 500.00.

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0101	108	VVSYSAQPSARLVLA	YSAQPSARL	0.8982	3.0	SB	0.05
DRB1_0101	109	VSYSQAQPSARLVLA	YSAQPSARL	0.8922	3.2	SB	0.15
DRB1_0101	107	TVVSYSAQPSARLV	YSAQPSARL	0.8913	3.2	SB	0.20
DRB1_0101	83	SQLLNSLLNLPAARV	LNSLLNLPA	0.8900	3.3	SB	0.20
DRB1_0101	84	QLLNSLLNLPAARVG	LLNLPAARV	0.8871	3.4	SB	0.30
DRB1_0101	110	SYSQAQPSARLVLAAG	YSAQPSARL	0.8832	3.5	SB	0.40
DRB1_0101	85	LLNSLLNLPAARVGD	LLNLPAARV	0.8818	3.6	SB	0.80
DRB1_0101	86	LNSLLNLPAARVGDD	LLNLPAARV	0.8739	3.9	SB	0.80
DRB1_0101	106	ITVVSYSQAQPSARLV	YSAQPSARL	0.8726	4.0	SB	0.80
DRB1_0101	82	KSQLLNSLLNLPAAR	LNSLLNLPA	0.8706	4.1	SB	1.00
DRB1_0101	111	YSAQPSARLVLAAGP	YSAQPSARL	0.8693	4.1	SB	1.00
DRB1_0101	480	HKMIIGMRGSYGGVV	IIGMRGSYG	0.8677	4.2	SB	1.00
DRB1_0101	481	KMIIGMRGSYGGVVM	IIGMRGSYG	0.8506	5.0	SB	2.00
DRB1_0101	81	GKSQLLNSLLNLPA	LNSLLNLPA	0.8503	5.1	SB	2.00
DRB1_0101	479	GHKMIIGMRGSYGGV	IIGMRGSYG	0.8461	5.3	SB	4.00
DRB1_0101	459	GTDFGRLKALGRMES	FGRLKALGR	0.8447	5.4	SB	4.00
DRB1_0101	493	VVMIGMLSSVVGGL	IGMLSSVVG	0.8429	5.5	SB	4.00
DRB1_0101	261	IAVSSLLRSHAVTLN	SLLRSHAV	0.8423	5.5	SB	4.00
DRB1_0101	492	GVMIGMLSSVVGGLG	MIGMLSSV	0.8419	5.5	SB	4.00
DRB1_0101	105	VITVVSYSQAQPSARL	YSAQPSARL	0.8404	5.6	SB	4.00
DRB1_0101	237	YPRWREIVNANAHL	WREIVNANA	0.8384	5.7	SB	4.00
DRB1_0101	75	AGLLKQGKSQLLNSL	LKQGKSQLL	0.8361	5.9	SB	4.00
DRB1_0101	87	NSLLNLPAARVGDE	LLNLPAARV	0.8351	6.0	SB	4.00
DRB1_0101	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.8350	6.0	SB	4.00
DRB1_0101	262	AVSLLRSHAVTLND	SLLRSHAV	0.8304	6.3	SB	4.00
DRB1_0101	606	IRESLQRQLGILSQVN	LQRQLGILS	0.8276	6.5	SB	4.00
DRB1_0101	491	GGVVMIGMLSSVVG	MIGMLSSV	0.8260	6.6	SB	4.00
DRB1_0101	260	I IAVSSLLRSHAVTL	SLLRSHAV	0.8235	6.8	SB	4.00
DRB1_0101	494	VMIGMLSSVVGGLGF	IGMLSSVVG	0.8210	6.9	SB	8.00
DRB1_0101	482	MIIGMRGSYGGVMI	IIGMRGSYG	0.8208	6.9	SB	8.00
DRB1_0101	458	MGTDFGRLKALGRME	FGRLKALGR	0.8207	7.0	SB	8.00
DRB1_0101	80	QGKSQLLNSLLNLPA	LNSLLNLPA	0.8201	7.0	SB	8.00
DRB1_0101	505	LGLFNPLSVGAGLIL	FNPLSVGAG	0.8197	7.0	SB	8.00
DRB1_0101	460	TDFGRLKALGRMESK	FGRLKALGR	0.8189	7.1	SB	8.00
DRB1_0101	74	IAGLLKQGKSQLLNS	LKQGKSQLL	0.8167	7.3	SB	8.00
DRB1_0101	76	GLLKQGKSQLLNSLL	LKQGKSQLL	0.8157	7.3	SB	8.00
DRB1_0101	490	YGGVVMIGMLSSVVG	MIGMLSSV	0.8151	7.4	SB	8.00
DRB1_0101	240	WREIVNANAHLQRA	IVNANAHL	0.8147	7.4	SB	8.00
DRB1_0101	88	SLLNLPAARVGDEEA	LLNLPAARV	0.8137	7.5	SB	8.00
DRB1_0101	241	REIVNANAHLQRAR	VNANAHLQ	0.8114	7.7	SB	8.00
DRB1_0101	478	RGHKMIIGMRGSYGG	IIGMRGSYG	0.8114	7.7	SB	8.00
DRB1_0101	238	PRWREIVNANAHLQ	WREIVNANA	0.8073	8.0	SB	8.00
DRB1_0101	457	VMGTDFGRLKALGRM	FGRLKALGR	0.8062	8.1	SB	8.00
DRB1_0101	582	RSLTESLQATIAAAQ	TESLQATIA	0.8056	8.2	SB	8.00
DRB1_0101	489	SYGGVVMIGMLSSV	MIGMLSSV	0.8036	8.4	SB	8.00
DRB1_0101	605	RIRELQRQLGILSQV	LQRQLGILS	0.8030	8.4	SB	8.00
DRB1_0101	239	RWREIVNANAHLQR	IVNANAHL	0.8015	8.6	SB	8.00
DRB1_0101	495	MIGMLSSVVGGLGFN	IGMLSSVVG	0.8006	8.6	SB	8.00
DRB1_0101	264	SLLRSHAVTLNDKE	LLRSHAVTL	0.7991	8.8	SB	8.00
DRB1_0101	477	RRGHKMIIGMRGSYG	IIGMRGSYG	0.7990	8.8	SB	8.00
DRB1_0101	504	GLGLFNPLSVGAGLI	FNPLSVGAG	0.7985	8.8	SB	8.00

DRB1_0101	73	VIAGLLKQGKSQLLN	LKQGKSQLL	0.7967	9.0	SB	8.00
DRB1_0101	154	VLRVEVGAPSPLLRG	VEVGAPSPL	0.7942	9.3	SB	8.00
DRB1_0101	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.7927	9.4	SB	8.00
DRB1_0101	77	LLKQKQSQLLNSLLN	LKQGKSQLL	0.7922	9.5	SB	8.00
DRB1_0101	607	RELQRQLGILSQVND	LQRQLGILS	0.7908	9.6	SB	8.00
DRB1_0101	506	GLFNPLSVGAGLILG	FNPLSVGAG	0.7881	9.9	SB	8.00
DRB1_0101	446	DSVLSAELSPHVMGT	LSAELSPHV	0.7871	10.0	SB	8.00
DRB1_0101	89	LLNLPAARVGDDEAT	LLNLPAARV	0.7840	10.4	SB	8.00
DRB1_0101	102	ATVVITVVSYSQAQS	VITVVSYSA	0.7814	10.6	SB	8.00
DRB1_0101	220	AHQICPVGAVVATKT	ICPVGAVVA	0.7786	11.0	SB	16.00
DRB1_0101	581	TRSLTESLQATIAAA	TESLQATIA	0.7786	11.0	SB	16.00
DRB1_0101	259	PIIAVSSLLRSHAVT	SSLLRSHAV	0.7780	11.0	SB	16.00
DRB1_0101	78	LKQGKSQLLNSLLNL	LKQGKSQLL	0.7779	11.1	SB	16.00
DRB1_0101	32	VGIVELIDHTIAIA	IVELIDHTI	0.7752	11.4	SB	16.00
DRB1_0101	507	LFNPLSVGAGLILGR	FNPLSVGAG	0.7749	11.4	SB	16.00
DRB1_0101	461	DFGRLKALGRMESKP	FGRLKALGR	0.7744	11.5	SB	16.00
DRB1_0101	465	LKALGRMESKPLRRG	LGRMESKPL	0.7728	11.7	SB	16.00
DRB1_0101	72	VVIAGLLKQGKSQLL	LKQGKSQLL	0.7728	11.7	SB	16.00
DRB1_0101	309	LGEIRSATEQLAVSL	IRSATEQLA	0.7721	11.8	SB	16.00
DRB1_0101	152	REVLRVEVGAPSPLL	LRVEVGAPS	0.7712	11.9	SB	16.00
DRB1_0101	447	SVLSAELSPHVMGTD	LSAELSPHV	0.7666	12.5	SB	16.00
DRB1_0101	153	EVLRVEVGAPSPLLR	VEVGAPSPL	0.7659	12.6	SB	16.00
DRB1_0101	286	PAIVKFLSEQVLSRA	VKFLSEQVL	0.7642	12.8	SB	16.00
DRB1_0101	258	MPIIAVSSLLRSHAV	SSLLRSHAV	0.7618	13.2	SB	16.00
DRB1_0101	236	LYPRWREIVNANAHA	WREIVNANA	0.7614	13.2	SB	16.00
DRB1_0101	421	NFVWAYQRSEALADD	WAYQRSEAL	0.7598	13.5	SB	16.00
DRB1_0101	503	VGLGLFNPLSVGAGL	FNPLSVGAG	0.7592	13.5	SB	16.00
DRB1_0101	420	DNFVWAYQRSEALAD	WAYQRSEAL	0.7579	13.7	SB	16.00
DRB1_0101	419	GDNFVWAYQRSEALA	WAYQRSEAL	0.7554	14.1	SB	16.00
DRB1_0101	496	IGMLSSVVGLGLFNP	IGMLSSVVG	0.7551	14.2	SB	16.00
DRB1_0101	285	FPAIVKFLSEQVLSR	VKFLSEQVL	0.7546	14.2	SB	16.00
DRB1_0101	462	FGRLKALGRMESKPL	FGRLKALGR	0.7546	14.2	SB	16.00
DRB1_0101	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.7539	14.3	SB	16.00
DRB1_0101	583	SLTESLQATIAAAQV	TESLQATIA	0.7535	14.4	SB	16.00
DRB1_0101	100	DEATVVITVVSYSQAQ	VITVVSYSA	0.7530	14.5	SB	16.00
DRB1_0101	287	AIVKFLSEQVLSRAT	VKFLSEQVL	0.7529	14.5	SB	16.00
DRB1_0101	155	LRVEVGAPSPLLRGG	VEVGAPSPL	0.7518	14.7	SB	16.00
DRB1_0101	101	EATVVITVVSYSQAQP	VITVVSYSA	0.7517	14.7	SB	16.00
DRB1_0101	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.7501	14.9	SB	16.00
DRB1_0101	217	VRQAHQICPVGAVVA	AHQICPVGA	0.7494	15.1	SB	16.00
DRB1_0101	5	LCAYRDLRRKRARKW	YRDLRRKRA	0.7493	15.1	SB	16.00
DRB1_0101	316	TEQLAVSLGSELSVSV	LAVSLGSEL	0.7449	15.8	SB	16.00
DRB1_0101	242	EIVNANAHLQRARV	VNANAHLQ	0.7449	15.8	SB	16.00
DRB1_0101	604	NRIRELQRQLGILSQ	LQRQLGILS	0.7409	16.5	SB	16.00
DRB1_0101	116	SARLVLAAGPDGTTA	LVLAAGPDG	0.7408	16.5	SB	16.00
DRB1_0101	443	AGLDSVLSAELSPHV	DSVLSAELS	0.7408	16.5	SB	16.00
DRB1_0101	620	NDNLAGLEPTLTTPRA	LAGLEPTLT	0.7401	16.6	SB	16.00
DRB1_0101	456	HVMGTDFGRLKALGR	FGRLKALGR	0.7393	16.8	SB	16.00
DRB1_0101	445	LDSVLSAELSPHVMG	LSAELSPHV	0.7383	17.0	SB	16.00
DRB1_0101	464	RKALGRMESKPLRR	LGRMESKPL	0.7360	17.4	SB	16.00
DRB1_0101	103	TVVITVVSYSQAQPSA	VITVVSYSA	0.7354	17.5	SB	16.00
DRB1_0101	117	ARLVLAAGPDGTTAA	LVLAAGPDG	0.7331	18.0	SB	16.00
DRB1_0101	580	ITRSLTESLQATIAA	TESLQATIA	0.7325	18.1	SB	16.00
DRB1_0101	288	IVKFLSEQVLSRATE	VKFLSEQVL	0.7310	18.4	SB	16.00
DRB1_0101	317	EQLAVSLGSELSVVN	AVSLGSELS	0.7264	19.3	SB	16.00
DRB1_0101	221	HQICPVGAVVATKTD	ICPVGAVVA	0.7261	19.4	SB	16.00
DRB1_0101	31	RVGVIVELIDHTIAI	IVELIDHTI	0.7261	19.4	SB	16.00
DRB1_0101	219	QAHQICPVGAVVATK	ICPVGAVVA	0.7256	19.5	SB	16.00
DRB1_0101	33	GVIVELIDHTIAIAK	IVELIDHTI	0.7255	19.5	SB	16.00
DRB1_0101	608	ELQRQLGILSQVNDN	LQRQLGILS	0.7244	19.7	SB	16.00
DRB1_0101	584	LTESLQATIAAAQVA	TESLQATIA	0.7238	19.9	SB	16.00
DRB1_0101	612	FLGILSQVNDNLAGL	ILSQVNDNL	0.7228	20.1	SB	16.00
DRB1_0101	422	QWVAYQRSEALADDV	WAYQRSEAL	0.7195	20.8	SB	16.00
DRB1_0101	218	RQAHQICPVGAVVAT	AHQICPVGA	0.7188	21.0	SB	16.00
DRB1_0101	99	DDEATVVITVVSYSQA	VITVVSYSA	0.7180	21.1	SB	16.00
DRB1_0101	169	GLAFIDTPGVGGLGQ	FIDTPGVGG	0.7172	21.3	SB	16.00
DRB1_0101	444	GLDSVLSAELSPHVM	DSVLSAELS	0.7166	21.5	SB	16.00
DRB1_0101	187	SATLGLLPEADAVLV	LGLLPEADA	0.7135	22.2	SB	16.00
DRB1_0101	212	PEMWFVRQAHQICPV	WFVRQAHQI	0.7130	22.3	SB	16.00
DRB1_0101	488	GSYGGVVMIGMLSSV	GVMIGMLS	0.7128	22.4	SB	16.00

DRB1_0101	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.7110	22.8	SB	16.00
DRB1_0101	585	TESLQATIAAAQVAE	LQATIAAAQ	0.7089	23.3	SB	32.00
DRB1_0101	254	RVPMPIIAVSSLLR	PMPPIAVSS	0.7086	23.4	SB	32.00
DRB1_0101	255	RVPMPIIAVSSLLRS	IIAVSSLLR	0.7054	24.2	SB	32.00
DRB1_0101	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.7049	24.4	SB	32.00
DRB1_0101	243	IVNANAHLQRRARVP	VNANAHLQ	0.7049	24.4	SB	32.00
DRB1_0101	310	GEIRSATEQLAVSLG	IRSATEQLA	0.7040	24.6	SB	32.00
DRB1_0101	284	NFPPIVVKFLSEQVLS	VKFLSEQVL	0.7040	24.6	SB	32.00
DRB1_0101	529	QNRLLRVRSEAKANV	LLRVRSEAK	0.7026	25.0	SB	32.00
DRB1_0101	466	KALGRMESKPLRRGH	LGRMESKPL	0.7004	25.6	SB	32.00
DRB1_0101	448	VLQATLSEPHVMGTDF	LSELSPHV	0.7003	25.6	SB	32.00
DRB1_0101	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.6987	26.0	SB	32.00
DRB1_0101	476	LRRGHKMIIGMRGSY	HKMIIGMRG	0.6983	26.2	SB	32.00
DRB1_0101	257	PMPPIIAVSSLLRSHA	IIAVSSLLR	0.6961	26.8	SB	32.00
DRB1_0101	603	DNRIRELQRQLGILS	LQRQLGILS	0.6954	27.0	SB	32.00
DRB1_0101	308	VLGEIRSATEQLAVS	IRSATEQLA	0.6953	27.0	SB	32.00
DRB1_0101	586	ESLQATIAAAQVAET	ATIAAAQVA	0.6952	27.1	SB	32.00
DRB1_0101	587	SLQATIAAAQVAETE	ATIAAAQVA	0.6951	27.1	SB	32.00
DRB1_0101	189	TLGLLPEADAVLVVS	LLPEADAVL	0.6946	27.2	SB	32.00
DRB1_0101	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.6935	27.6	SB	32.00
DRB1_0101	318	QLAVSLGSELSVVND	AVSLGSELS	0.6932	27.6	SB	32.00
DRB1_0101	213	EMWVFRQAHQICPVG	WFVFRQAHQI	0.6931	27.7	SB	32.00
DRB1_0101	256	VPMPPIIAVSSLLRSH	IIAVSSLLR	0.6915	28.2	SB	32.00
DRB1_0101	621	DNLAGLEPTLTTPRAS	LAGLEPTLT	0.6899	28.7	SB	32.00
DRB1_0101	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.6871	29.5	SB	32.00
DRB1_0101	235	DLYPRWREIVNANAA	WREIVNANA	0.6865	29.7	SB	32.00
DRB1_0101	6	CAYRDLRRKRARKWG	YRDLRRKRA	0.6851	30.2	SB	32.00
DRB1_0101	487	RGSYGGVVMIGMLS	GVVMIGMLS	0.6850	30.2	SB	32.00
DRB1_0101	104	VVITVVSYSAPQSAR	VITVVSYS	0.6846	30.3	SB	32.00
DRB1_0101	289	VKFLSEQVLSRATER	FLSEQVLSR	0.6844	30.4	SB	32.00
DRB1_0101	223	ICPVGAVVATKTDLY	VGAVVATKT	0.6838	30.6	SB	32.00
DRB1_0101	609	LQRQLGILSQVNDNL	LQRQLGILS	0.6829	30.9	SB	32.00
DRB1_0101	79	KQKGSQLLNSLLNLP	KSQLLNSLL	0.6815	31.4	SB	32.00
DRB1_0101	418	VGDNFVWAYQRSEAL	WAYQRSEAL	0.6811	31.5	SB	32.00
DRB1_0101	290	KFLSEQVLSRATERV	SEQVLSRAT	0.6804	31.7	SB	32.00
DRB1_0101	222	QICPVGAVVATKTDL	ICPVGAVVA	0.6782	32.5	SB	32.00
DRB1_0101	442	DAGLDSVLSAELSPH	DSVLSAELS	0.6764	33.1	SB	32.00
DRB1_0101	423	VWAYQRSEALADDVA	WAYQRSEAL	0.6759	33.3	SB	32.00
DRB1_0101	216	FVRQAHQICPVGAVV	AHQICPVGA	0.6735	34.2	SB	32.00
DRB1_0101	622	NLAGLEPTLTTPRASL	LAGLEPTLT	0.6728	34.5	SB	32.00
DRB1_0101	613	LGILSQVNDNLAGLE	ILSQVNDNL	0.6722	34.7	SB	32.00
DRB1_0101	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.6707	35.3	SB	32.00
DRB1_0101	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.6706	35.3	SB	32.00
DRB1_0101	188	ATLGLLPEADAVLVV	LLPEADAVL	0.6703	35.4	SB	32.00
DRB1_0101	475	PLRRGHKMIIGMRGS	HKMIIGMRG	0.6692	35.9	SB	32.00
DRB1_0101	619	VNDNLAGLEPTLTTPR	LAGLEPTLT	0.6681	36.3	SB	32.00
DRB1_0101	463	GRLKALGRMESKPLR	LGRMESKPL	0.6676	36.5	SB	32.00
DRB1_0101	115	PSARLVLAAGPDGTT	LVLAAGPDG	0.6659	37.1	SB	32.00
DRB1_0101	118	RLVLAAGPDGTTAAV	LVLAAGPDG	0.6657	37.2	SB	32.00
DRB1_0101	156	RVEVGAPSPLLRGGL	VEVGAPSPL	0.6649	37.5	SB	32.00
DRB1_0101	623	LAGLEPTLTTPRASLG	LEPTLTTPRA	0.6647	37.6	SB	32.00
DRB1_0101	253	RARVPMPPIIAVSSLL	PMPPIAVSS	0.6639	38.0	SB	32.00
DRB1_0101	170	LAFIDTPGVGGLGQP	FIDTPGVGG	0.6619	38.8	SB	32.00
DRB1_0101	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.6617	38.9	SB	32.00
DRB1_0101	298	SRATERVRAGVLGEI	TERVRAGVL	0.6611	39.1	SB	32.00
DRB1_0101	579	EITRSLTESLQATIA	TESLQATIA	0.6601	39.5	SB	32.00
DRB1_0101	486	MRGSYGGVVMIGMLS	GVVMIGMLS	0.6597	39.7	SB	32.00
DRB1_0101	510	PLSVGAGLILGRMAY	LSVGAGLIL	0.6591	40.0	SB	32.00
DRB1_0101	34	VIVELIDHTIAIAKL	IVELIDHTI	0.6582	40.4	SB	32.00
DRB1_0101	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.6545	42.0	SB	32.00
DRB1_0101	311	EIRSATEQLAVSLGS	IRSATEQLA	0.6536	42.4	SB	32.00
DRB1_0101	543	VRFVDDISFVVSQK	FVDDISFVV	0.6520	43.2	SB	32.00
DRB1_0101	67	DPQVRVVIAGLLKQG	VRVVIAGLL	0.6520	43.2	SB	32.00
DRB1_0101	186	LSATLGLLPEADAVL	TLGLLPEAD	0.6518	43.3	SB	32.00
DRB1_0101	214	MWVFRQAHQICPVGA	WFVFRQAHQI	0.6504	43.9	SB	32.00
DRB1_0101	283	SNFPPIVVKFLSEQVL	VKFLSEQVL	0.6504	43.9	SB	32.00
DRB1_0101	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.6491	44.6	SB	32.00
DRB1_0101	249	AHLQRRARVPMPPIAV	QRARVPMPPI	0.6477	45.2	SB	32.00
DRB1_0101	151	GREVLRVEVGAPSPL	LRVEVGAPS	0.6473	45.4	SB	32.00
DRB1_0101	30	RRVGVIVELIDHTIA	IVELIDHTI	0.6429	47.6	SB	32.00

DRB1_0101	3	AGLCAYRDLRRKRAR	YRDLRRKRA	0.6420	48.1	SB	32.00
DRB1_0101	474	KPLRRGHKMIIGMRG	HKMIIGMRG	0.6395	49.4	SB	32.00
DRB1_0101	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.6394	49.5	SB	32.00
DRB1_0101	190	LGLLPEADAVLVVSD	LLPEADAVL	0.6381	50.2	WB	32.00
DRB1_0101	215	WVVRQAHCICPVGAV	AHQICPVGA	0.6375	50.5	WB	32.00
DRB1_0101	497	GMLSSVVGLGLFNPL	LSSVVGLGL	0.6367	50.9	WB	32.00
DRB1_0101	66	TDPQVRVVIAGLLKQ	VRVVIAGLL	0.6364	51.1	WB	32.00
DRB1_0101	570	RDHYREIAEEITRSL	YREIAEEIT	0.6363	51.2	WB	32.00
DRB1_0101	248	AAHLQRRARVPMPIIA	LQRARVPMPI	0.6356	51.6	WB	32.00
DRB1_0101	500	SSVVGLGLFNPLSVG	GLGLFNPLS	0.6338	52.6	WB	32.00
DRB1_0101	7	AYRDLRRKRARKWGD	YRDLRRKRA	0.6323	53.5	WB	32.00
DRB1_0101	313	RSATEQLAVSLGSEL	TEQLAVSLG	0.6318	53.7	WB	32.00
DRB1_0101	68	PQVRVVIAGLLKQKQK	VRVVIAGLL	0.6315	53.9	WB	32.00
DRB1_0101	439	SFADAGLDSVLSAEL	DAGLDSVLS	0.6314	53.9	WB	32.00
DRB1_0101	252	QRARVPMPIIAVSSL	RVPMPPIIAV	0.6313	54.0	WB	32.00
DRB1_0101	407	GNDVENAIATAVGDN	VENAIATAV	0.6310	54.2	WB	32.00
DRB1_0101	611	RQLGILSQVNDNLG	ILSQVNDNL	0.6298	54.9	WB	32.00
DRB1_0101	542	NVRRFVDDISFVVSK	FVDDISFVV	0.6292	55.2	WB	32.00
DRB1_0101	211	EPFMWFVRQAHCICP	WFVRQAHCQI	0.6286	55.6	WB	32.00
DRB1_0101	467	ALGRMESKPLRRGHK	LGRMESKPL	0.6264	57.0	WB	32.00
DRB1_0101	307	GVLGEIRSATEQLAV	IRSATEQLA	0.6249	57.9	WB	32.00
DRB1_0101	210	TEPEMWFVRQAHCIC	WFVRQAHCQI	0.6244	58.2	WB	32.00
DRB1_0101	312	IRSATEQLAVSLGSE	IRSATEQLA	0.6208	60.5	WB	32.00
DRB1_0101	512	SVGAGLILGRMAYKE	AGLILGRMA	0.6199	61.1	WB	32.00
DRB1_0101	65	ITDPQVRVVIAGLLK	VRVVIAGLL	0.6193	61.5	WB	32.00
DRB1_0101	499	LSSVVGLGLFNPLSV	LSSVVGLGL	0.6188	61.8	WB	32.00
DRB1_0101	588	LQATIAAAQVAETER	ATIAAAQVA	0.6153	64.2	WB	32.00
DRB1_0101	319	LAVSLGSELSVVNDP	AVSLGSELS	0.6135	65.5	WB	32.00
DRB1_0101	449	LSAELSPHVMGTDFG	LSAELSPHV	0.6133	65.6	WB	32.00
DRB1_0101	251	LQRARVPMPIIAVSS	RVPMPPIIAV	0.6126	66.2	WB	32.00
DRB1_0101	69	QVRVVIAGLLKQKGS	VRVVIAGLL	0.6124	66.3	WB	32.00
DRB1_0101	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.6111	67.2	WB	32.00
DRB1_0101	498	MLSSVVGLGLFNPLS	LSSVVGLGL	0.6111	67.2	WB	32.00
DRB1_0101	291	FLSEQVLSRATERVR	SEQVLSRAT	0.6096	68.3	WB	32.00
DRB1_0101	250	HLQRARVPMPIIAVS	RVPMPPIIAV	0.6054	71.4	WB	32.00
DRB1_0101	521	RMAYKEDKQNRLLRV	YKEDKQNR	0.6042	72.4	WB	32.00
DRB1_0101	544	RFVDDISFVSKQS	FVDDISFVV	0.6035	72.9	WB	32.00
DRB1_0101	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.6016	74.5	WB	32.00
DRB1_0101	440	FADAGLDSVLSAELS	LDSVLSAEL	0.6011	74.9	WB	32.00
DRB1_0101	485	GMRGSYGGVVMIGML	MRGSYGGVV	0.6004	75.5	WB	50.00
DRB1_0101	114	QPSARLVLAAGPDGT	LVLAAGPDG	0.5960	79.1	WB	50.00
DRB1_0101	234	TDLYPRWREIVNANA	WREIVNANA	0.5950	80.0	WB	50.00
DRB1_0101	182	GQPHLSATLGLLPEA	LSATLGLLP	0.5930	81.7	WB	50.00
DRB1_0101	531	RLLRVRSEAKANVRR	LLRVRSEAK	0.5928	81.9	WB	50.00
DRB1_0101	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.5925	82.2	WB	50.00
DRB1_0101	424	WAYQRSEALADDVAR	WAYQRSEAL	0.5906	83.9	WB	50.00
DRB1_0101	244	VNANAHLQRARVPM	VNANAHLQ	0.5904	84.0	WB	50.00
DRB1_0101	183	QPHLSATLGLLPEAD	LSATLGLLP	0.5902	84.2	WB	50.00
DRB1_0101	541	ANVRRFVDDISFVVS	FVDDISFVV	0.5899	84.5	WB	50.00
DRB1_0101	35	IVELIDHTIAIAKLN	IVELIDHTI	0.5876	86.7	WB	50.00
DRB1_0101	299	RATERVRAGVLGEIR	TERVRAGVL	0.5875	86.8	WB	50.00
DRB1_0101	513	VGAGLILGRMAYKED	AGLILGRMA	0.5871	87.1	WB	50.00
DRB1_0101	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.5852	88.9	WB	50.00
DRB1_0101	224	CPVGAVVATKTDLYP	VGAVVATKT	0.5846	89.5	WB	50.00
DRB1_0101	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.5846	89.5	WB	50.00
DRB1_0101	314	SATEQLAVSLGSELS	TEQLAVSLG	0.5834	90.7	WB	50.00
DRB1_0101	29	PRRVGIVELIDHTI	IVELIDHTI	0.5833	90.8	WB	50.00
DRB1_0101	405	EIGNDVENAIATAVG	VENAIATAV	0.5806	93.5	WB	50.00
DRB1_0101	610	QRQLGILSQVNDNLA	ILSQVNDNL	0.5786	95.5	WB	50.00
DRB1_0101	157	VEVGAPSPLLRGGLA	VEVGAPSPL	0.5766	97.6	WB	50.00
DRB1_0101	246	ANAAHLQRARVPMPI	AHLQRARVP	0.5766	97.7	WB	50.00
DRB1_0101	569	LRDHYREIAEEITRS	HYREIAEEI	0.5755	98.8	WB	50.00
DRB1_0101	185	HLSATLGLLPEADAV	TLGLLPEAD	0.5751	99.2	WB	50.00
DRB1_0101	181	LGQPHLSATLGLLPE	PHLSATLGL	0.5744	99.9	WB	50.00
DRB1_0101	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.5728	101.7	WB	50.00
DRB1_0101	2	PAGLCAYRDLRRKRA	YRDLRRKRA	0.5726	101.9	WB	50.00
DRB1_0101	406	IGNDVENAIATAVGD	VENAIATAV	0.5725	102.0	WB	50.00
DRB1_0101	618	QVNDNLAGLEPTLTP	LAGLEPTLT	0.5724	102.2	WB	50.00
DRB1_0101	614	GILSQVNDNLAGLEP	ILSQVNDNL	0.5707	104.0	WB	50.00
DRB1_0101	209	FTEPEMWFVRQAHCQI	WFVRQAHCQI	0.5683	106.9	WB	50.00

DRB1_0101	276	DKELNEESNFPAIVK	LNEESNFPA	0.5681	107.0	WB	50.00
DRB1_0101	37	ELIDHTIAIAKLNER	DHTIAIAKL	0.5672	108.1	WB	50.00
DRB1_0101	247	NAAHLQRRARVPMPII	LQRARVPM	0.5671	108.2	WB	50.00
DRB1_0101	8	YRDLRRKRARKWGD	YRDLRRKRA	0.5668	108.5	WB	50.00
DRB1_0101	468	LGRMSEKPLRRGHKM	LGRMSEKPL	0.5652	110.4	WB	50.00
DRB1_0101	180	GLGQPHLSATLGLLP	PHLSATLGL	0.5639	112.0	WB	50.00
DRB1_0101	556	KQSRDRLKMIQRLLR	RLKMIQRLL	0.5634	112.6	WB	50.00
DRB1_0101	408	NDVENAIATAVGDNF	VENAIATAV	0.5624	113.8	WB	50.00
DRB1_0101	70	VRVVIAGLLKQGKSQ	VRVVIAGLL	0.5618	114.6	WB	50.00
DRB1_0101	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.5617	114.8	WB	50.00
DRB1_0101	558	SRDLRKMIQRLLRDH	RLKMIQRLL	0.5611	115.5	WB	50.00
DRB1_0101	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.5590	118.0	WB	50.00
DRB1_0101	50	ERGLDVQRLTRARQR	DLVQRLTRA	0.5582	119.1	WB	50.00
DRB1_0101	624	AGLEPTLTTPRASLGR	LEPTLTTPRA	0.5569	120.8	WB	50.00
DRB1_0101	577	AEEITRSLTESLQAT	ITRSLTESL	0.5554	122.7	WB	50.00
DRB1_0101	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.5553	122.9	WB	50.00
DRB1_0101	119	LVLAAAGPDGTTAAVD	VLAAGPDGT	0.5539	124.9	WB	50.00
DRB1_0101	179	GGLGQPHLSATLGLL	PHLSATLGL	0.5525	126.7	WB	50.00
DRB1_0101	38	LIDHTIAIAKLNERG	DHTIAIAKL	0.5516	127.9	WB	50.00
DRB1_0101	177	GVGGLGQPHLSATLG	GLGQPHLSA	0.5515	128.1	WB	50.00
DRB1_0101	176	PGVGGGLGQPHLSATL	GGLGQPHLS	0.5511	128.6	WB	50.00
DRB1_0101	297	LSRATERVRAGVLGE	TERVRAGVL	0.5509	128.9	WB	50.00
DRB1_0101	191	LLPEADAVLVVSDT	LLPEADAVL	0.5508	129.1	WB	50.00
DRB1_0101	44	AIAKLNERGDLVQRL	KLNERGDLV	0.5499	130.3	WB	50.00
DRB1_0101	527	DKQNRLLRVRSEAKA	LLRVRSEAK	0.5499	130.4	WB	50.00
DRB1_0101	514	GAGLILGRMAYKEDK	AGLILGRMA	0.5486	132.2	WB	50.00
DRB1_0101	36	VELIDHTIAIAKLNE	IDHTIAIAK	0.5480	133.0	WB	50.00
DRB1_0101	184	PHLSATLGLLPEADA	LSATLGLLP	0.5480	133.0	WB	50.00
DRB1_0101	164	PLLRRGGLAFIDTPGV	LAFIDTPGV	0.5468	134.8	WB	50.00
DRB1_0101	540	KANVRRFVDDISFVV	FVDDISFVV	0.5458	136.3	WB	50.00
DRB1_0101	357	TALWQQVLGDGFNDL	WQQVLGDGF	0.5452	137.2	WB	50.00
DRB1_0101	277	KELNEESNFPAIVKF	LNEESNFPA	0.5451	137.2	WB	50.00
DRB1_0101	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.5448	137.7	WB	50.00
DRB1_0101	292	LSEQVLSRATERVRA	SEQVLSRAT	0.5438	139.1	WB	50.00
DRB1_0101	293	SEQVLSRATERVRAG	VLSRATERV	0.5434	139.8	WB	50.00
DRB1_0101	282	ESNFPAIVKFLSEQV	IVKFLSEQV	0.5422	141.7	WB	50.00
DRB1_0101	571	DHYREIAEEITRSLT	YREIAEEIT	0.5405	144.3	WB	50.00
DRB1_0101	51	RGDLVQRLTRARQRI	DLVQRLTRA	0.5404	144.4	WB	50.00
DRB1_0101	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.5383	147.8	WB	50.00
DRB1_0101	532	LLRVRSEAKANVRRF	VRSEAKANV	0.5369	150.0	WB	50.00
DRB1_0101	545	RFVDDISFVVSKQSR	FVDDISFVV	0.5363	151.0	WB	50.00
DRB1_0101	161	APSPLLRGGLAFIDT	LRGGLAFID	0.5347	153.6	WB	50.00
DRB1_0101	549	DISFVVSKQSRDRLK	FVVSKQSRD	0.5335	155.6	WB	50.00
DRB1_0101	625	GLEPTLTTPRASLGRA	TLTTPRASLG	0.5328	156.8	WB	50.00
DRB1_0101	159	VGAPSPLLRGGLAFI	SPLLRGGLA	0.5294	162.6	WB	50.00
DRB1_0101	160	GAPSPLLRGGLAFID	SPLLRGGLA	0.5293	162.9	WB	50.00
DRB1_0101	162	PSPLLRGGLAFIDTP	LRGGLAFID	0.5278	165.5	WB	50.00
DRB1_0101	163	SPLLRGGLAFIDTPG	LRGGLAFID	0.5277	165.7	WB	50.00
DRB1_0101	555	SKQSRDRLKMIQRLL	RLKMIQRLL	0.5244	171.6	WB	50.00
DRB1_0101	296	VLSRATERVRAGVLG	TERVRAGVL	0.5243	171.9	WB	50.00
DRB1_0101	522	MAYKEDKQNRLLRVR	YKEDKQNRL	0.5235	173.3	WB	50.00
DRB1_0101	602	RDNRIRELQRQLGIL	IRELQRQLG	0.5224	175.4	WB	50.00
DRB1_0101	178	VGGLGQPHLSATLGL	GLGQPHLSA	0.5223	175.6	WB	50.00
DRB1_0101	438	RSFADAGLDSVLSAE	DAGLDSVLS	0.5218	176.6	WB	50.00
DRB1_0101	550	ISFVVSKQSRDRDKM	FVVSKQSRD	0.5218	176.7	WB	50.00
DRB1_0101	515	AGLILGRMAYKEDKQ	AGLILGRMA	0.5213	177.7	WB	50.00
DRB1_0101	578	EEITRSLTESLQATI	ITRSLTESL	0.5203	179.5	WB	50.00
DRB1_0101	572	HYREIAEEITRSLTE	YREIAEEIT	0.5203	179.5	WB	50.00
DRB1_0101	225	PVGAVVATKTDLYPR	VGAVVATKT	0.5175	184.9	WB	50.00
DRB1_0101	306	AGVLGEIRSATEQLA	IRSATEQLA	0.5160	188.1	WB	50.00
DRB1_0101	404	AEIGNDVENAIATAV	VENAIATAV	0.5159	188.2	WB	50.00
DRB1_0101	568	LLRDHYREIAEEITR	HYREIAEEI	0.5132	193.8	WB	50.00
DRB1_0101	437	ARRFDYAGLDSVLSA	DAGLDSVLS	0.5126	195.2	WB	50.00
DRB1_0101	547	VDDISFVVSKQSRDR	ISFVVSKQS	0.5123	195.8	WB	50.00
DRB1_0101	473	SKPLRRGHKMIIGMR	LRRGHKMI I	0.5121	196.1	WB	50.00
DRB1_0101	52	GDLVQRLTRARQRIT	VQRLTRARQ	0.5082	204.6	WB	50.00
DRB1_0101	113	AQPSARLVLAAGPDG	LVLAAGPDG	0.5070	207.2	WB	50.00
DRB1_0101	589	QATIAAAQVAETERD	ATIAAAQVA	0.5069	207.5	WB	50.00
DRB1_0101	45	IAKLNERGDLVQRLT	KLNERGDLV	0.5059	209.9	WB	50.00
DRB1_0101	278	ELNEESNFPAIVKFL	NFPAIVKFL	0.5046	212.8	WB	50.00

DRB1_0101	0	MVPAGLCAYRDLRRK	PAGLCAYRD	0.4993	225.2	WB	50.00
DRB1_0101	112	SAQPSARLVLAAGPD	SAQPSARLV	0.4980	228.5	WB	50.00
DRB1_0101	279	LNEESNFPAIVKFLS	NFPAIVKFL	0.4979	228.7	WB	50.00
DRB1_0101	149	AGGKQVLRVEVGAPS	LRVEVGAPS	0.4962	233.0	WB	50.00
DRB1_0101	524	YKEDKQNRLLRVSE	DKQNRLLRV	0.4962	233.1	WB	50.00
DRB1_0101	150	GGREVLNRVEVGAPSP	LRVEVGAPS	0.4959	233.8	WB	50.00
DRB1_0101	158	EVGAPSPLLRGGLAF	EVGAPSPLL	0.4956	234.6	WB	50.00
DRB1_0101	295	QVLSRATERVRAGVL	TERVRAGVL	0.4954	234.9	WB	50.00
DRB1_0101	320	AVSLGSELSVVNDPN	AVSLGSELS	0.4949	236.3	WB	50.00
DRB1_0101	454	SPHVMGTDFGRLKAL	VMGTDFGRL	0.4939	238.8	WB	50.00
DRB1_0101	300	ATERTRAGVLGEIRS	TERVRAGVL	0.4936	239.6	WB	50.00
DRB1_0101	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.4935	239.9	WB	50.00
DRB1_0101	573	YREIAEEITRSLTES	IAEEITRSL	0.4935	240.0	WB	50.00
DRB1_0101	546	FVDDISFVVSQSRD	FVDDISFVV	0.4911	246.3	WB	50.00
DRB1_0101	615	ILSQVNDNLAGLEPT	ILSQVNDNL	0.4910	246.5	WB	50.00
DRB1_0101	226	VGAVVATKTDLYPRW	VGAVVATKT	0.4900	249.2	WB	50.00
DRB1_0101	175	TPGVGGLGQPHLSAT	GGLGQPHLS	0.4893	251.1	WB	50.00
DRB1_0101	39	IDHTIAIAKLNERRGD	DHTIAIAKL	0.4886	253.0	WB	50.00
DRB1_0101	523	AYKEDKQNRLLRVRS	DKQNRLLRV	0.4864	259.0	WB	50.00
DRB1_0101	526	EDKQNRLLRVRSEAK	NRLLRVRS	0.4864	259.1	WB	50.00
DRB1_0101	409	DVENAIATAVGDNFV	VENAIATAV	0.4863	259.3	WB	50.00
DRB1_0101	281	EESNFPAIVKFLSEQ	NFPAIVKFL	0.4845	264.5	WB	50.00
DRB1_0101	301	TERVRAGVLGEIRSA	VRAVLGEI	0.4838	266.5	WB	50.00
DRB1_0101	192	LLPEADAVLVVSDTS	LLPEADAVL	0.4824	270.5	WB	50.00
DRB1_0101	548	DDISFVVSQSRDRL	FVVSQSRD	0.4823	270.7	WB	50.00
DRB1_0101	62	RQRITDPQVRVVIAG	ITDPQVRVV	0.4800	277.6	WB	50.00
DRB1_0101	275	NDKELNEESNFPAIV	LNEESNFPA	0.4794	279.5	WB	50.00
DRB1_0101	53	DLVQRLTRARQRITD	VQRLTRARQ	0.4789	280.9	WB	50.00
DRB1_0101	28	DPRRVGVIVELIDHT	RVGVIVELI	0.4786	282.0	WB	50.00
DRB1_0101	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.4773	285.9	WB	50.00
DRB1_0101	520	GRMAYKEDKQNRLLR	YKEDKQNR	0.4763	289.0	WB	50.00
DRB1_0101	47	KLNERGDLVQRLTRA	ERGDVQRL	0.4760	289.9	WB	50.00
DRB1_0101	245	NANAHLQRRARVPM	AHLQRRARV	0.4757	290.9	WB	50.00
DRB1_0101	280	NEESNFPAIVKFLSE	NFPAIVKFL	0.4729	299.7	WB	50.00
DRB1_0101	140	STDVRRAPHAGGREV	VRRAPHAGG	0.4717	303.6	WB	50.00
DRB1_0101	46	AKLNERGDLVQRLTR	KLNERGDLV	0.4706	307.3	WB	50.00
DRB1_0101	49	NERGDLVQRLTRARQ	LVQRLTRA	0.4672	318.7	WB	50.00
DRB1_0101	27	DDPRRVGVIVELIDH	RVGVIVELI	0.4670	319.7	WB	50.00
DRB1_0101	455	PHVMGTDFGRLKALG	VMGTDFGRL	0.4650	326.4	WB	50.00
DRB1_0101	305	RAGVLGEIRSATEQL	VLGEIRSAT	0.4643	329.1	WB	50.00
DRB1_0101	61	ARQRITDPQVRVVI	ITDPQVRVV	0.4640	330.2	WB	50.00
DRB1_0101	54	LVQRLTRARQRITDP	VQRLTRARQ	0.4636	331.6	WB	50.00
DRB1_0101	358	ALWQVLDGDFNDLT	WQVLDGDF	0.4624	335.9	WB	50.00
DRB1_0101	551	SFVVSQSRDRLKMI	FVVSQSRD	0.4596	346.4	WB	50.00
DRB1_0101	350	AQQAVQQTALWQQVL	AVQQTALWQ	0.4592	347.5	WB	50.00
DRB1_0101	48	LNERGDLVQRLTRAR	ERGDVQRL	0.4589	348.9	WB	50.00
DRB1_0101	294	EQVLSRATERVRAGV	VLSRATERV	0.4583	351.2	WB	50.00
DRB1_0101	576	IAEEITRSLTESLQA	ITRSLTESL	0.4562	359.3	WB	50.00
DRB1_0101	472	ESKPLRRGHKMIIGM	LRRGHKMI	0.4555	362.0	WB	50.00
DRB1_0101	43	IAIAKLNERRGDLVQR	KLNERGDLV	0.4539	368.0	WB	50.00
DRB1_0101	25	QPDDPRRVGVIVELI	RVGVIVELI	0.4538	368.6	WB	50.00
DRB1_0101	26	PDDPRRVGVIVELID	RVGVIVELI	0.4535	369.7	WB	50.00
DRB1_0101	410	VENAIATAVGDNFVW	VENAIATAV	0.4534	370.1	WB	50.00
DRB1_0101	453	LSPHVMGTDFGRLKA	VMGTDFGRL	0.4525	373.9	WB	50.00
DRB1_0101	355	QQTALWQQVLDGDFN	WQVLDGDF	0.4489	388.9	WB	50.00
DRB1_0101	563	KMIQRLLRDHYREIA	QRLLRDHYR	0.4484	390.7	WB	50.00
DRB1_0101	63	QRITDPQVRVVIAGL	ITDPQVRVV	0.4462	400.4	WB	50.00
DRB1_0101	351	QQAVQQTALWQQVLG	AVQQTALWQ	0.4456	402.8	WB	50.00
DRB1_0101	71	RVVIAGLLKQKSQL	RVVIAGLLK	0.4455	403.3	WB	50.00
DRB1_0101	525	KEDKQNRLLRVRSEA	DKQNRLLRV	0.4453	404.0	WB	50.00
DRB1_0101	436	VARSFADAGLDSVLS	SFADAGLDS	0.4450	405.5	WB	50.00
DRB1_0101	97	VGDEATVITVVSYS	DEATVITV	0.4413	421.9	WB	50.00
DRB1_0101	1	VPAGLCAYRDLRRKR	PAGLCAYRD	0.4407	424.6	WB	50.00
DRB1_0101	55	VQRLTRARQRITDPQ	LTRARQRIT	0.4390	432.6	WB	50.00
DRB1_0101	425	AYQRSEALADDVARS	YQRSEALAD	0.4385	435.0	WB	50.00
DRB1_0101	40	DHTIAIAKLNERRGDL	DHTIAIAKL	0.4369	442.6	WB	50.00
DRB1_0101	567	RLLRDHYREIAEEIT	HYREIAEEI	0.4365	444.3	WB	50.00
DRB1_0101	302	ERVRAGVLGEIRSAT	VRAGVLGEI	0.4355	449.5	WB	50.00
DRB1_0101	601	ERDNRIRELQRQLGI	IRELQRQLG	0.4332	460.8	WB	50.00
DRB1_0101	516	GLILGRMAYKEDKQN	ILGRMAYKE	0.4317	468.4	WB	50.00

DRB1_0101	345	RRKREAQQAVQQTAL	REAQQAVQQ	0.4315	469.1	WB	50.00
DRB1_0101	356	QTALWQQVLGDGFND	WQQVLGDGF	0.4314	469.9	WB	50.00
DRB1_0101	60	RARQRITDPQVRVVI	QRITDPQVR	0.4283	485.6	WB	50.00
DRB1_0101	533	LRVRSEAKANVRRFV	VRSEAKANV	0.4280	487.6	WB	50.00
DRB1_0101	303	RVRAGVLGEIRSATE	VRAGVLGEI	0.4275	489.7	WB	50.00
DRB1_0101	304	VRAGVLGEIRSATEQ	VLGEIRSAT	0.4274	490.5	WB	50.00
DRB1_0101	174	DTPGVGGLGQPHLSA	GGLGQPHLS	0.4272	491.5	WB	50.00
DRB1_0101	139	ISTDVRRAPHAGGRE	VRRAPHAGG	0.4204	529.0		50.00
DRB1_0101	452	ELSPHVMGTDFGRLK	VMGTDFGRL	0.4199	532.2		50.00
DRB1_0101	352	QAVQQTALWQQVLGD	AVQQTALWQ	0.4191	536.3		50.00
DRB1_0101	353	AVQQTALWQQVLGDG	AVQQTALWQ	0.4136	569.8		50.00
DRB1_0101	332	DPNLRDRLASDLERR	LRDRLASDL	0.4133	571.4		50.00
DRB1_0101	98	GDDEATVVITVVSYS	DEATVVITV	0.4114	583.0		50.00
DRB1_0101	471	MESKPLRRGHKMIIG	LRRGHKMI I	0.4090	598.4		50.00
DRB1_0101	354	VQQTALWQQVLGDGF	WQQVLGDGF	0.4075	608.5		50.00
DRB1_0101	41	HTIAIAKLNERGDLV	HTIAIAKLN	0.4056	621.0		50.00
DRB1_0101	138	DISTDVRRAPHAGGR	VRRAPHAGG	0.4039	632.2		50.00
DRB1_0101	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.4035	635.2		50.00
DRB1_0101	141	TDVRRAPHAGGREVL	VRRAPHAGG	0.4022	644.5		50.00
DRB1_0101	574	REIAEEITRSLTESL	IAEEITRSL	0.4010	652.8		50.00
DRB1_0101	590	ATIAAAQVAETERDN	ATIAAAQVA	0.4006	655.2		50.00
DRB1_0101	333	PNLRDRLASDLERRK	LRDRLASDL	0.3963	686.5		50.00
DRB1_0101	426	YQRSEALADDVARSF	YQRSEALAD	0.3940	703.9		50.00
DRB1_0101	365	GDGFNDLTADVHDHL	FNDLTADV D	0.3932	710.0		50.00
DRB1_0101	96	RVGDDEATVVITVVS	DEATVVITV	0.3925	715.3		50.00
DRB1_0101	417	AVGDNFVWAYQRSEA	DNFVWAYQR	0.3908	729.2		50.00
DRB1_0101	349	EAQQAVQQTALWQQV	AVQQTALWQ	0.3898	736.7		50.00
DRB1_0101	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.3893	740.5		50.00
DRB1_0101	554	VSKQSRDRLKMIQRL	DRLKMIQRL	0.3893	741.0		50.00
DRB1_0101	552	FVVKQSRDRLKMIQ	FVVKQSRD	0.3857	769.9		50.00
DRB1_0101	346	RKREAQQAVQQTALW	REAQQAVQQ	0.3846	779.5		50.00
DRB1_0101	42	TIAIAKLNERGDLVQ	KLNERGDLV	0.3838	786.0		50.00
DRB1_0101	564	MIQRLLRDHYREIAE	QRLLRDHYR	0.3837	787.3		50.00
DRB1_0101	206	SQEFTEPEMWFVRQA	FTEPEMWFV	0.3814	806.5		50.00
DRB1_0101	435	DVARSFADAGLDSVL	FADAGLDSV	0.3812	808.5		50.00
DRB1_0101	517	LILGRMAYKEDKQNR	ILGRMAYKE	0.3807	813.2		50.00
DRB1_0101	470	RRESKPLRRGHKMI I	LRRGHKMI I	0.3802	817.8		50.00
DRB1_0101	374	DVDHDLRTRFRFTVTE	DLRTRFRFTV	0.3795	823.2		50.00
DRB1_0101	519	LGRMAYKEDKQNRLL	YKEDKQNR L	0.3782	834.9		50.00
DRB1_0101	450	SAELSPHVMGTDFGR	SAELSPHVM	0.3764	851.7		50.00
DRB1_0101	375	VDHDLRTRFRFTVTE	DLRTRFRFTV	0.3755	859.7		50.00
DRB1_0101	373	ADVHDHLRTRFRFTVT	DLRTRFRFTV	0.3750	865.1		50.00
DRB1_0101	575	EIAEEITRSLTESLQ	ITRSLTESL	0.3740	874.5		50.00
DRB1_0101	193	LPEADAVLVVSDTSQ	LPEADAVLV	0.3737	877.2		50.00
DRB1_0101	566	QRLLRDHYREIAEEI	HYREIAEEI	0.3724	888.9		50.00
DRB1_0101	274	LNDKELNEESNFPAI	LNEESNFPA	0.3708	904.5		50.00
DRB1_0101	343	LERRKREAQQAVQQT	RKREAQQAV	0.3698	914.3		50.00
DRB1_0101	56	QRLTRARQRITDPQV	LTRARQRIT	0.3687	925.7		50.00
DRB1_0101	348	REAQQAVQQTALWQQ	AVQQTALWQ	0.3685	927.2		50.00
DRB1_0101	380	RTRFRFTVTEAERQI	FRTVTEDAE	0.3680	932.3		50.00
DRB1_0101	451	AELSPHVMGTDFGRL	VMGTDFGRL	0.3663	950.3		50.00
DRB1_0101	347	KREAQQAVQQTALWQ	AVQQTALWQ	0.3628	986.9		50.00
DRB1_0101	59	TRARQRITDPQVRVV	RQRITDPQV	0.3582	1037.2		50.00
DRB1_0101	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.3570	1051.1		50.00
DRB1_0101	334	NLRDRLASDLERRKR	LRDRLASDL	0.3552	1071.1		50.00
DRB1_0101	95	ARVGDDEATVVITVV	DEATVVITV	0.3541	1083.6		50.00
DRB1_0101	325	SELSVNDPNLRDRL	SVVNDPNLR	0.3529	1098.1		50.00
DRB1_0101	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.3510	1120.5		50.00
DRB1_0101	565	IQRLLRDHYREIAEE	LLRDHYREI	0.3508	1124.0		50.00
DRB1_0101	142	DVRRAPHAGGREVLR	VRRAPHAGG	0.3482	1155.3		50.00
DRB1_0101	227	GAVVATKTDLYPRWR	VVATKTDLY	0.3447	1200.0		50.00
DRB1_0101	321	VSLGSELSVNDPNL	VSLGSELSV	0.3443	1205.5		50.00
DRB1_0101	145	RPHAGGREVLRVEV	HAGGREVLR	0.3441	1207.5		50.00
DRB1_0101	382	RFRTVTEAERQIDS	TVTEAERQ	0.3431	1221.6		50.00
DRB1_0101	600	TERDNRIRELQRQLG	IRELQRQLG	0.3423	1232.1		50.00
DRB1_0101	207	QEFTEPEMWFVRQAH	FTEPEMWFV	0.3401	1261.9		50.00
DRB1_0101	534	RVRSEAKANVRRFVD	VRSEAKANV	0.3396	1268.3		50.00
DRB1_0101	344	ERRKREAQQAVQQTA	REAQQAVQQ	0.3392	1273.4		50.00
DRB1_0101	137	DDISTDVRRAPHAGG	VRRAPHAGG	0.3385	1283.7		50.00
DRB1_0101	232	TKTDLYPRWREIVNA	DLYPRWREI	0.3373	1299.6		50.00

DRB1_0101	147	PHAGGREVLRVEVGA	GREVLRVEV	0.3365	1311.2	50.00
DRB1_0101	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.3364	1313.4	50.00
DRB1_0101	148	HAGGREVLRVEVGAP	GREVLRVEV	0.3359	1319.6	50.00
DRB1_0101	173	IDTPGVGGLGQPHLS	GVGLGQPHL	0.3359	1320.3	50.00
DRB1_0101	195	EADAVLVVSDTSQEF	AVLVVSDTS	0.3350	1333.3	50.00
DRB1_0101	412	NAIATAVGDNFVWAY	ATAVGDNFV	0.3346	1339.0	50.00
DRB1_0101	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.3342	1344.4	50.00
DRB1_0101	196	ADAVLVVSDTSQEFT	VLVVSDTSQ	0.3339	1349.1	50.00
DRB1_0101	230	VATKTDLYPRWREIV	KTDLYPRWR	0.3336	1352.7	50.00
DRB1_0101	518	ILGRMAYKEDKQNRL	YKEDKQNRL	0.3335	1354.6	50.00
DRB1_0101	135	PVDDISTDVRRAPHA	DISTDVRRA	0.3315	1384.2	50.00
DRB1_0101	331	NDPNLRDRLASDLER	LRDRLASDL	0.3312	1389.2	50.00
DRB1_0101	416	TAVGDNFVWAYQRSE	DNFVWAYQR	0.3296	1413.5	50.00
DRB1_0101	372	TADVHDHLRTRFRTV	DLRTRFRTV	0.3293	1417.9	50.00
DRB1_0101	376	DHDLRTRFRTVTEDA	DLRTRFRTV	0.3278	1440.3	50.00
DRB1_0101	366	DGFNDLTADVHDHLR	FNDLTADV	0.3277	1442.4	50.00
DRB1_0101	469	GRMESKPLRRGHKMI	MESKPLRRG	0.3268	1456.5	50.00
DRB1_0101	146	APHAGGREVLRVEVG	HAGGREVLR	0.3263	1465.2	50.00
DRB1_0101	411	ENAIATAVGDNFVWA	IATAVGDNF	0.3258	1471.8	50.00
DRB1_0101	231	ATKTDLYPRWREIVN	KTDLYPRWR	0.3241	1499.8	50.00
DRB1_0101	144	RRAPHAGGREVLRVE	PHAGGREVL	0.3221	1532.0	50.00
DRB1_0101	326	ELSVVNDPNLRDRLA	SVVNDPNLR	0.3215	1543.1	50.00
DRB1_0101	136	VDDISTDVRRAPHAG	DISTDVRRA	0.3203	1562.4	50.00
DRB1_0101	360	WQVQLGDGFNDLTAD	WQVQLGDGF	0.3192	1581.7	50.00
DRB1_0101	229	VVATKTDLYPRWREI	TKTDLYPRW	0.3189	1586.3	50.00
DRB1_0101	9	RDLRRKRARKWGDTV	LRRKRARKW	0.3184	1595.5	50.00
DRB1_0101	377	HDLRTRFRTVTEDAE	DLRTRFRTV	0.3183	1597.0	50.00
DRB1_0101	431	ALADDVARSFADAGL	DDVARSFAD	0.3175	1610.5	50.00
DRB1_0101	368	FNDLTADVHDHLRTR	LTADVHDHL	0.3174	1612.1	50.00
DRB1_0101	367	DGFNDLTADVHDHLRT	FNDLTADV	0.3173	1613.9	50.00
DRB1_0101	208	EFTEPEMWFVRQAHQ	FTEPEMWFV	0.3151	1653.2	50.00
DRB1_0101	233	KTDLYPRWREIVNAN	LYPRWREIV	0.3139	1674.9	50.00
DRB1_0101	194	PEADAVLVVSDTSQE	DAVLVSDT	0.3103	1741.4	50.00
DRB1_0101	381	TRFRTVTEDAERQID	FRTVTEDAE	0.3091	1764.1	50.00
DRB1_0101	414	IATAVGDNFVWAYQR	ATAVGDNFV	0.3068	1808.3	50.00
DRB1_0101	415	ATAVGDNFVWAYQRS	DNFVWAYQR	0.3065	1815.2	50.00
DRB1_0101	24	TQPDDPRRVGIVEL	RRVGIVEL	0.3060	1823.8	50.00
DRB1_0101	413	AIATAVGDNFVWAYQ	ATAVGDNFV	0.3049	1846.8	50.00
DRB1_0101	434	DDVARSFADAGLDSV	FADAGLDSV	0.3048	1848.1	50.00
DRB1_0101	228	AVVATKTDLYPRWRE	VVATKTDLY	0.3028	1887.7	50.00
DRB1_0101	335	LRDRLASDLERRKRE	LRDRLASDL	0.3016	1913.4	50.00
DRB1_0101	57	RLTRARQRITDPQVR	LTRARQRIT	0.2994	1959.3	50.00
DRB1_0101	322	SLGSELSVVNDPNLR	LSVVNDPNL	0.2988	1972.5	50.00
DRB1_0101	553	VVSKQSRDRLKMIQR	VSKQSRDRL	0.2966	2020.6	50.00
DRB1_0101	273	TLNDKELNEESNFPA	LNEESNFPA	0.2953	2047.9	50.00
DRB1_0101	342	DLERRKREAQQAVQQ	RKREAQQAV	0.2933	2093.8	50.00
DRB1_0101	21	DTVTQPDDPRRVGVI	TQPDDPRRV	0.2927	2106.5	50.00
DRB1_0101	427	QRSEALADDVARSF	SEALADDVA	0.2920	2122.4	50.00
DRB1_0101	378	DLRTRFRTVTEDAER	FRTVTEDAE	0.2908	2149.8	50.00
DRB1_0101	204	DSQEFTEPEMWFVR	FTEPEMWFV	0.2902	2164.9	50.00
DRB1_0101	327	LSVVNDPNLRDRLAS	SVVNDPNLR	0.2897	2175.7	50.00
DRB1_0101	432	LADDVARSFADAGLD	DDVARSFAD	0.2891	2189.8	50.00
DRB1_0101	399	PTAHWAEIGNDVENA	HWAEIGNDV	0.2866	2249.7	50.00
DRB1_0101	536	RSEAKANVRRFVDDI	AKANVRRFV	0.2863	2258.8	50.00
DRB1_0101	122	AAGPDGTTAAVDIPV	PDGTTAAVD	0.2860	2265.5	50.00
DRB1_0101	433	ADDVARSFADAGLDS	VARSFADAG	0.2842	2310.7	50.00
DRB1_0101	197	DAVLVSDTSQEFTE	VLVSDTSQ	0.2833	2333.1	50.00
DRB1_0101	379	LRTRFRTVTEDAERQ	FRTVTEDAE	0.2817	2373.7	50.00
DRB1_0101	94	AARVGDDEATVVITV	VGDDEATVV	0.2811	2387.6	50.00
DRB1_0101	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.2809	2393.7	50.00
DRB1_0101	267	LRSHAVTLNDKELNE	LRSHAVTLN	0.2808	2395.8	50.00
DRB1_0101	22	PVTQPDDPRRVGIV	TQPDDPRRV	0.2802	2412.0	50.00
DRB1_0101	125	DGTTAAVDIPVDDI	TTAAVDIPV	0.2800	2416.6	50.00
DRB1_0101	363	VLGDGFNDLTADVHD	FNDLTADV	0.2787	2451.9	50.00
DRB1_0101	535	VRSEAKANVRRFVDD	RSEAKANVR	0.2764	2514.0	50.00
DRB1_0101	364	LGDFNDLTADVHDH	FNDLTADV	0.2763	2516.5	50.00
DRB1_0101	595	AQVAETERDNRIREL	AETERDNR	0.2741	2575.2	50.00
DRB1_0101	123	AGPDGTTAAVDIPVD	DGTTAAVDI	0.2733	2598.1	50.00
DRB1_0101	329	VVNDPNLRDRLASDL	LRDRLASDL	0.2732	2602.2	50.00
DRB1_0101	539	AKANVRRFVDDISFV	VRRFVDDIS	0.2726	2619.3	50.00

DRB1_0101	400	TAHWAEIGNDVENAI	HWAEIGNDV	0.2724	2624.4	50.00
DRB1_0101	330	VNDPNLRDRLASDLE	LRDRLASDL	0.2722	2628.5	50.00
DRB1_0101	198	FVLVVSDDTSQEFTEP	VLVVSDDTSQ	0.2679	2755.0	50.00
DRB1_0101	383	FRTVTEDAERQIDSC	TVTEDAERQ	0.2654	2830.0	50.00
DRB1_0101	134	IPVDDISTDVRRA	DISTDVRRA	0.2652	2837.4	50.00
DRB1_0101	591	TIAAAQVAETERDNR	IAAAQVAET	0.2637	2883.8	50.00
DRB1_0101	10	DLRRKRARKWGDVT	LRRKRARKW	0.2637	2883.8	50.00
DRB1_0101	391	ERQIDSCDPTAHWAE	IDSCDPTAH	0.2627	2915.5	50.00
DRB1_0101	403	WAEIGNDVENAIATA	NDVENAIAT	0.2624	2924.3	50.00
DRB1_0101	58	LTRARQRITDPQVRV	LTRARQRIT	0.2601	2998.6	50.00
DRB1_0101	20	GDTVTQPDDPRRVG	TQPDDPRRV	0.2585	3050.1	50.00
DRB1_0101	11	LRRKRARKWGDVTQ	LRRKRARKW	0.2583	3055.9	50.00
DRB1_0101	121	LAAGPDGTTAAVDIP	LAAGPDGTT	0.2582	3061.0	50.00
DRB1_0101	428	RSEALADDVARSFAD	SEALADDVA	0.2578	3073.1	50.00
DRB1_0101	390	AERQIDSCDPTAHWA	IDSCDPTAH	0.2569	3102.4	50.00
DRB1_0101	537	SEAKANVRRFVDDIS	AKANVRRFV	0.2569	3102.8	50.00
DRB1_0101	392	RQIDSCDPTAHWAEI	IDSCDPTAH	0.2566	3114.4	50.00
DRB1_0101	430	EALADDVARSFADAG	VARSFADAG	0.2566	3114.4	50.00
DRB1_0101	402	HWAEIGNDVENAIAT	EIGNDVENA	0.2545	3184.0	50.00
DRB1_0101	90	LNLPAARVGDEEATV	LNLPAARVG	0.2537	3211.2	50.00
DRB1_0101	371	LTADVHDHLRTRFRT	LTADVHDHL	0.2512	3299.9	50.00
DRB1_0101	19	WGDTVTQPDDPRRVG	TQPDDPRRV	0.2491	3375.1	50.00
DRB1_0101	124	GPDGTAAVDIPVDD	TTAAVDIPV	0.2489	3384.4	50.00
DRB1_0101	23	VTQPDDPRRVGIVE	TQPDDPRRV	0.2485	3399.5	50.00
DRB1_0101	369	NDLTADVHDHLRTRF	LTADVHDHL	0.2485	3399.6	50.00
DRB1_0101	393	QIDSCDPTAHWAEIG	IDSCDPTAH	0.2478	3423.7	50.00
DRB1_0101	18	KWGDVTVTQPDDPRV	TQPDDPRRV	0.2471	3450.5	50.00
DRB1_0101	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.2470	3454.0	50.00
DRB1_0101	126	DGTAAVDIPVDDIS	TTAAVDIPV	0.2456	3506.5	50.00
DRB1_0101	599	ETERDNRIRELQRQL	RIRELQRQL	0.2451	3526.6	50.00
DRB1_0101	389	DAERQIDSCDPTAHW	IDSCDPTAH	0.2434	3590.0	50.00
DRB1_0101	388	EDAERQIDSCDPTAH	IDSCDPTAH	0.2434	3592.6	50.00
DRB1_0101	401	AHWAEIGNDVENAIA	HWAEIGNDV	0.2426	3621.8	50.00
DRB1_0101	362	QVLGDGFNDLTADV	FNDLTADV	0.2426	3622.6	50.00
DRB1_0101	398	DPTAHWAEIGNDVEN	HWAEIGNDV	0.2416	3661.5	50.00
DRB1_0101	361	QQLVGDGFNDLTADV	LGDFGNDLT	0.2415	3666.7	50.00
DRB1_0101	429	SEALADDVARSFADA	SEALADDVA	0.2400	3727.0	50.00
DRB1_0101	127	GTTAAVDIPVDDIST	TTAAVDIPV	0.2393	3753.2	50.00
DRB1_0101	93	PAARVGDEEATVVIT	ARVGDEEAT	0.2384	3789.2	50.00
DRB1_0101	341	SDLERRKREAQQAVQ	RKREAQQAV	0.2360	3891.0	50.00
DRB1_0101	596	QVAETERDNRIRELQ	AETERDNRI	0.2359	3894.3	50.00
DRB1_0101	538	EAKANVRRFVDDISF	VRRFVDDIS	0.2357	3902.9	50.00
DRB1_0101	397	CDPTAHWAEIGNDVE	HWAEIGNDV	0.2354	3913.9	50.00
DRB1_0101	92	LPAARVGDEEATVVI	ARVGDEEAT	0.2352	3926.3	50.00
DRB1_0101	592	IAAAQVAETERDNRI	AETERDNRI	0.2342	3965.5	50.00
DRB1_0101	268	RSHAVTLNDKELNEE	AVTLNDKEL	0.2333	4006.3	50.00
DRB1_0101	12	RRKRARKWGDVTQ	RARKWGDTV	0.2331	4016.5	50.00
DRB1_0101	17	RKWGDVTVTQPDDPR	TVTQPDDPR	0.2309	4111.2	50.00
DRB1_0101	370	DLTADVHDHLRTRFR	LTADVHDHL	0.2307	4118.4	50.00
DRB1_0101	396	SCDPTAHWAEIGNDV	HWAEIGNDV	0.2302	4143.5	50.00
DRB1_0101	328	SVVNDPNLRDRLASD	SVVNDPNLR	0.2278	4252.1	50.00
DRB1_0101	594	AAQVAETERDNRIRE	AETERDNRI	0.2272	4277.8	50.00
DRB1_0101	91	NLPAARVGDEEATVV	ARVGDEEAT	0.2262	4327.2	50.00
DRB1_0101	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.2247	4395.5	50.00
DRB1_0101	593	AAAQVAETERDNRIR	AETERDNRI	0.2208	4585.4	50.00
DRB1_0101	16	ARKWGDVTVTQPDDP	TVTQPDDPR	0.2199	4632.1	50.00
DRB1_0101	13	RKRARKWGDVTQ	RARKWGDTV	0.2189	4681.6	50.00
DRB1_0101	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.2173	4762.3	50.00
DRB1_0101	199	VLVVSDDTSQEFTEPE	VLVVSDDTSQ	0.2155	4858.2	50.00
DRB1_0101	133	DIPVDDISTDVRRA	DISTDVRRA	0.2140	4936.5	50.00
DRB1_0101	384	RTVTEDAERQIDSCD	TVTEDAERQ	0.2135	4964.0	50.00
DRB1_0101	132	VDIPVDDISTDVRRA	DISTDVRRA	0.2131	4985.0	50.00
DRB1_0101	597	VAETERDNRIRELQR	AETERDNRI	0.2098	5163.0	50.00
DRB1_0101	340	ASDLERRKREAQQAV	RKREAQQAV	0.2044	5478.2	50.00
DRB1_0101	598	AETERDNRIRELQRQ	AETERDNRI	0.2033	5541.3	50.00
DRB1_0101	14	KRARKWGDVTVTQ	RARKWGDTV	0.2013	5660.3	50.00
DRB1_0101	336	RDRLASDLERRKREA	LASDLERRK	0.2013	5665.8	50.00
DRB1_0101	15	RARKWGDVTVTQ	DTVTQPDDP	0.1985	5839.5	50.00
DRB1_0101	385	TVTEDAERQIDSCDP	TVTEDAERQ	0.1882	6526.0	50.00
DRB1_0101	395	DSCDPTAHWAEIGND	CDPTAHWAE	0.1865	6644.8	50.00

DRB1_0101	129	TAAVDIPVDDISTDV	DIPVDDIST	0.1857	6702.3	50.00
DRB1_0101	130	AAVDIPVDDISTDVR	DIPVDDIST	0.1807	7075.1	50.00
DRB1_0101	387	TEDAERQIDSCDPTA	ERQIDSCDP	0.1802	7116.4	50.00
DRB1_0101	271	AVTLNDKELNEESNF	NDKELNEES	0.1801	7124.0	50.00
DRB1_0101	269	SHAVTLNDKELNEES	AVTLNDKEL	0.1798	7149.9	50.00
DRB1_0101	270	HAVTLNDKELNEESN	AVTLNDKEL	0.1772	7352.3	50.00
DRB1_0101	272	VTLNDKELNEESNFP	NDKELNEES	0.1770	7366.5	50.00
DRB1_0101	386	VTEDAERQIDSCDPT	ERQIDSCDP	0.1716	7808.1	50.00
DRB1_0101	337	DRLASDLERRKREAQ	LASDLERRK	0.1693	8003.7	50.00
DRB1_0101	338	RLASDLERRKREAQQ	LASDLERRK	0.1659	8306.4	50.00
DRB1_0101	131	AVDIPVDDISTDVR	DIPVDDIST	0.1610	8759.5	50.00
DRB1_0101	200	LVVSDTSQEFTEPEM	TSQEFTEPE	0.1610	8762.5	50.00
DRB1_0101	339	LASDLERRKREAQQA	RRKREAQQA	0.1599	8861.6	50.00
DRB1_0101	202	VSDTSQEFTEPEMWF	TSQEFTEPE	0.1527	9581.3	50.00
DRB1_0101	201	VVSDTSQEFTEPEMW	TSQEFTEPE	0.1357	11518.4	50.00

Allele: DRB1_0101. Number of high binders 194. Number of weak binders 214. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0301	288	IVKFLSEQVLSRATE	IVKFLSEQV	0.7017	25.2	SB	0.80
DRB1_0301	287	AIVKFLSEQVLSRAT	IVKFLSEQV	0.6744	33.9	SB	1.00
DRB1_0301	543	VRRFVDDISFVVSQ	VRRFVDDIS	0.6710	35.2	SB	1.00
DRB1_0301	34	VIVELIDHTIAIAKL	VIVELIDHT	0.6534	42.5	SB	2.00
DRB1_0301	542	NVRRFVDDISFVVSQ	VRRFVDDIS	0.6497	44.3	SB	2.00
DRB1_0301	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.6433	47.4	SB	2.00
DRB1_0301	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.6422	48.0	SB	2.00
DRB1_0301	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.6418	48.2	SB	2.00
DRB1_0301	550	ISFVVSQSRDRLKM	ISFVVSQSQS	0.6344	52.2	WB	2.00
DRB1_0301	549	DISFVVSQSRDRLK	ISFVVSQSQS	0.6324	53.4	WB	2.00
DRB1_0301	260	IIAVSSLLRSHAVTL	IIAVSSLLR	0.6321	53.6	WB	2.00
DRB1_0301	35	IVELIDHTIAIAKLN	IVELIDHTI	0.6296	55.0	WB	2.00
DRB1_0301	135	PVDVDDISTDVR	VDDISTDVR	0.6280	56.0	WB	2.00
DRB1_0301	133	DIPVDDISTDVR	VDDISTDVR	0.6278	56.1	WB	2.00
DRB1_0301	134	IPVDDISTDVR	VDDISTDVR	0.6217	59.9	WB	2.00
DRB1_0301	136	VDDISTDVR	VDDISTDVR	0.6193	61.5	WB	2.00
DRB1_0301	197	DAVLVSDTSQEFTE	AVLVVSDTS	0.6189	61.8	WB	2.00
DRB1_0301	559	RDRLKMIQRLLRDHY	LKMIQRLLR	0.6156	64.0	WB	2.00
DRB1_0301	548	DDISFVVSQSRDRL	ISFVVSQSQS	0.6139	65.2	WB	4.00
DRB1_0301	263	VSSLLRSHAVTLNDK	VSSLLRSHA	0.6118	66.7	WB	4.00
DRB1_0301	371	LTADVHDHLRTRFRT	TADVHDHLR	0.6089	68.8	WB	4.00
DRB1_0301	33	GVIVELIDHTIAIAK	VIVELIDHT	0.6083	69.3	WB	4.00
DRB1_0301	541	ANVRRFVDDISFVVS	VRRFVDDIS	0.6039	72.6	WB	4.00
DRB1_0301	370	DLTADVHDHLRTRFR	TADVHDHLR	0.5995	76.2	WB	4.00
DRB1_0301	561	RLKMIQRLLRDHYRE	LKMIQRLLR	0.5986	76.9	WB	4.00
DRB1_0301	428	RSEALADDVARSFAD	SEALADDVA	0.5959	79.3	WB	4.00
DRB1_0301	285	FPAIVKFLSEQVLSR	IVKFLSEQV	0.5909	83.6	WB	4.00
DRB1_0301	560	DRLKMIQRLLRDHYR	LKMIQRLLR	0.5883	86.0	WB	4.00
DRB1_0301	563	KMIQRLLRDHYREIA	IQRLLRDHY	0.5855	88.6	WB	4.00
DRB1_0301	132	VDIPVDDISTDVRRA	VDDISTDVR	0.5843	89.8	WB	4.00
DRB1_0301	372	TADVHDHLRTRFRTV	TADVHDHLR	0.5842	89.9	WB	4.00
DRB1_0301	262	PVSSLLRSHAVTLND	VSSLLRSHA	0.5835	90.6	WB	4.00
DRB1_0301	259	PIIAVSSLLRSHAVT	IIAVSSLLR	0.5825	91.6	WB	4.00
DRB1_0301	369	NDLTADVHDHLRTRF	TADVHDHLR	0.5812	92.9	WB	4.00
DRB1_0301	544	RRFVDDISFVVSQSQS	RRFVDDISF	0.5790	95.1	WB	4.00
DRB1_0301	547	VDDISFVVSQSRDR	ISFVVSQSQS	0.5755	98.8	WB	4.00
DRB1_0301	368	FNDLTADVHDHLRTR	FNDLTADV	0.5735	101.0	WB	4.00
DRB1_0301	261	IAVSSLLRSHAVTLN	VSSLLRSHA	0.5698	105.1	WB	4.00
DRB1_0301	565	IQRLLRDHYREIAEE	IQRLLRDHY	0.5684	106.6	WB	4.00
DRB1_0301	196	ADAVLVSDTSQEFTE	AVLVVSDTS	0.5668	108.5	WB	4.00
DRB1_0301	32	VGIVIVELIDHTIAIA	VIVELIDHT	0.5658	109.8	WB	4.00
DRB1_0301	427	QRSEALADDVARSF	SEALADDVA	0.5646	111.2	WB	4.00
DRB1_0301	4	GLCAYRDLRRKRARK	GLCAYRDLR	0.5634	112.6	WB	4.00
DRB1_0301	36	VELIDHTIAIAKLNE	IDHTIAIAK	0.5627	113.5	WB	4.00
DRB1_0301	258	MPIIAVSSLLRSHAV	IIAVSSLLR	0.5590	118.2	WB	4.00
DRB1_0301	336	RDRLASDLERRKREA	RDRLASDLE	0.5589	118.2	WB	4.00
DRB1_0301	564	MIQRLLRDHYREIAE	IQRLLRDHY	0.5575	120.1	WB	4.00

DRB1_0301	429	SEALADDVARSFADA	SEALADDVA	0.5557	122.4	WB	4.00
DRB1_0301	558	SRDRLKMIQRLLRDH	LKMIQRLLR	0.5523	126.9	WB	4.00
DRB1_0301	367	GFNDLTADVDHDLRT	FNDLTADVD	0.5513	128.4	WB	4.00
DRB1_0301	335	LRDRLASDLERRKRE	RDRLASDLE	0.5511	128.7	WB	4.00
DRB1_0301	540	KANVRRFVDDISFVV	VRRFVDDIS	0.5495	130.8	WB	8.00
DRB1_0301	3	AGLCAYRDLRRKRAR	GLCAYRDLR	0.5468	134.8	WB	8.00
DRB1_0301	257	PMP I IAVSSLLRSHA	I IAVSSLLR	0.5454	136.8	WB	8.00
DRB1_0301	226	VGAVVATKTDLYPRW	VVATKTDLY	0.5372	149.6	WB	8.00
DRB1_0301	131	AVDIPVDDISTDVR	IPVDDISTD	0.5310	160.0	WB	8.00
DRB1_0301	1	VPAGLCAYRDLRRKR	GLCAYRDLR	0.5286	164.1	WB	8.00
DRB1_0301	289	VKFLSEQVLSRATER	FLSEQVLSR	0.5282	164.8	WB	8.00
DRB1_0301	37	ELIDHTIAIAKLNER	IDHTIAIAK	0.5255	169.6	WB	8.00
DRB1_0301	551	SFVVSKQSRDRLKMI	SFVVSKQSR	0.5246	171.3	WB	8.00
DRB1_0301	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.5231	174.2	WB	8.00
DRB1_0301	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.5231	174.2	WB	8.00
DRB1_0301	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.5221	176.0	WB	8.00
DRB1_0301	2	PAGLCAYRDLRRKRA	GLCAYRDLR	0.5219	176.5	WB	8.00
DRB1_0301	52	GDLVQRLTRARQRIT	LVQRLTRAR	0.5218	176.6	WB	8.00
DRB1_0301	334	NLRDRLASDLERRKR	RLASDLERR	0.5218	176.6	WB	8.00
DRB1_0301	546	FVDDISFVVSKQSRD	SFVVSKQSR	0.5206	179.0	WB	8.00
DRB1_0301	426	YQRSEALADDVARSF	SEALADDVA	0.5187	182.6	WB	8.00
DRB1_0301	327	LSVVNDPNLRDRLAS	SVVNDPNLR	0.5128	194.6	WB	8.00
DRB1_0301	455	PHVMGTDFGRLKALG	VMGTDFGRL	0.5124	195.6	WB	8.00
DRB1_0301	82	KSLLNLSLLNLPAA	QLLNLSLLN	0.5118	196.8	WB	8.00
DRB1_0301	31	RVGVIVELIDHTIAI	VIVELIDHT	0.5105	199.6	WB	8.00
DRB1_0301	199	VLVSDTSQEFTEPE	LVVSDTSQE	0.5077	205.7	WB	8.00
DRB1_0301	557	QSRDRLKMIQRLLRD	LKMIQRLLR	0.4995	224.7	WB	8.00
DRB1_0301	445	LDSVLSAELSPHVMG	LDSVLSAEL	0.4983	227.7	WB	8.00
DRB1_0301	366	DGFNDLTADVDHDLR	FNDLTADVD	0.4973	230.3	WB	8.00
DRB1_0301	545	RFVDDISFVVSKQSR	RFVDDISFV	0.4961	233.3	WB	8.00
DRB1_0301	291	FLSEQVLSRATERVR	FLSEQVLSR	0.4941	238.4	WB	8.00
DRB1_0301	264	SSLLRSHAVTLNDKE	SSLLRSHAV	0.4928	241.8	WB	8.00
DRB1_0301	454	SPHVMGTDFGRLKAL	VMGTDFGRL	0.4924	242.8	WB	8.00
DRB1_0301	225	PVGAVVATKTDLYPR	VGAVVATKT	0.4920	243.8	WB	8.00
DRB1_0301	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.4919	244.2	WB	8.00
DRB1_0301	195	EADAVLVVSDTSQEF	AVLVVSDTS	0.4907	247.2	WB	8.00
DRB1_0301	290	KFLSEQVLSRATERV	FLSEQVLSR	0.4880	254.7	WB	8.00
DRB1_0301	81	GKSQLLNLSLLNLPAA	QLLNLSLLN	0.4866	258.5	WB	8.00
DRB1_0301	256	VPMP I IAVSSLLRSH	I IAVSSLLR	0.4851	262.6	WB	8.00
DRB1_0301	53	DLVQRLTRARQRITD	LVQRLTRAR	0.4839	266.3	WB	8.00
DRB1_0301	333	PNLRDRLASDLERRK	RDRLASDLE	0.4830	268.9	WB	8.00
DRB1_0301	5	LCAYRDLRRKRARKW	LCAYRDLRR	0.4818	272.3	WB	8.00
DRB1_0301	0	MVPAGLCAYRDLRRK	VPAGLCAYR	0.4810	274.5	WB	8.00
DRB1_0301	50	RGDLVQRLTRARQR	DLVQRLTRA	0.4808	275.3	WB	8.00
DRB1_0301	227	GAVVATKTDLYPRWR	VVATKTDLY	0.4789	280.9	WB	16.00
DRB1_0301	228	AVVATKTDLYPRWRE	VVATKTDLY	0.4738	296.7	WB	16.00
DRB1_0301	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.4716	304.2	WB	16.00
DRB1_0301	83	SQLLNLSLLNLPAAV	QLLNLSLLN	0.4699	309.6	WB	16.00
DRB1_0301	456	HVMGTDFGRLKALGR	VMGTDFGRL	0.4673	318.4	WB	16.00
DRB1_0301	556	KQSRDRLKMIQRLLR	RDRLKMIQR	0.4659	323.4	WB	16.00
DRB1_0301	420	DNFVWAYQRSEALAD	FVWAYQRSE	0.4638	331.0	WB	16.00
DRB1_0301	444	GLDSVLSAELSPHVM	LDSVLSAEL	0.4628	334.3	WB	16.00
DRB1_0301	531	RLLRVRSEAKANVRR	LLRVRSEAK	0.4610	341.1	WB	16.00
DRB1_0301	337	DRLASDLERRKREAQ	RLASDLERR	0.4610	341.1	WB	16.00
DRB1_0301	418	VGDNFVWAYQRSEAL	FVWAYQRSE	0.4582	351.3	WB	16.00
DRB1_0301	130	AAVDIPVDDISTDVR	IPVDDISTD	0.4573	354.8	WB	16.00
DRB1_0301	446	DSVLSAELSPHVMGT	DSVLSAELS	0.4523	374.8	WB	16.00
DRB1_0301	269	SHAVTLNDKELNEES	HAVTLNDKE	0.4503	382.8	WB	16.00
DRB1_0301	373	ADVHDHLRTRFRVT	VDHLRTRF	0.4496	385.6	WB	16.00
DRB1_0301	443	AGLDSVLSAELSPHV	DSVLSAELS	0.4474	394.9	WB	16.00
DRB1_0301	61	ARQRITDPQVRVIA	QRITDPQVR	0.4463	399.9	WB	16.00
DRB1_0301	305	RAGVLGEIRSATEQL	RAGVLGEIR	0.4460	401.0	WB	16.00
DRB1_0301	293	SEQVLSRATERVRAG	SEQVLSRAT	0.4458	402.1	WB	16.00
DRB1_0301	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.4453	404.3	WB	16.00
DRB1_0301	295	QVLSRATERVRAGVL	QVLSRATER	0.4444	407.9	WB	16.00
DRB1_0301	80	QGKSQLLNLSLLNLP	QLLNLSLLN	0.4428	415.4	WB	16.00
DRB1_0301	374	DVDHDLRTRFRVTVE	VDHLRTRF	0.4419	419.2	WB	16.00
DRB1_0301	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.4409	423.7	WB	16.00
DRB1_0301	479	GHKMIIGMRGSYGGV	MIIGMRGSY	0.4394	430.6	WB	16.00
DRB1_0301	62	RQRITDPQVRVVIAG	QRITDPQVR	0.4374	440.4	WB	16.00

DRB1_0301	365	GDGFNDLTADVHDHL	FNDLTADV	0.4369	442.5	WB	16.00
DRB1_0301	440	FADAGLDSVLSAELS	FADAGLDSV	0.4358	447.9	WB	16.00
DRB1_0301	539	AKANVRRFVDDISFV	VRRFVDDIS	0.4340	456.7	WB	16.00
DRB1_0301	375	VDHDLRTRFRVTED	VDHDLRTRF	0.4338	457.6	WB	16.00
DRB1_0301	294	EQVLSRATERVRAGV	QVLSRATER	0.4338	457.6	WB	16.00
DRB1_0301	224	CPVGAVVATKTDLYP	VGAVVATKT	0.4336	458.9	WB	16.00
DRB1_0301	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.4325	464.3	WB	16.00
DRB1_0301	60	RARQRITDPQVRVVI	QRITDPQVR	0.4301	476.2	WB	16.00
DRB1_0301	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.4296	478.9	WB	16.00
DRB1_0301	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.4292	481.1	WB	16.00
DRB1_0301	529	QNRLLRVRSEAKANV	LLRVRSEAK	0.4260	498.0	WB	16.00
DRB1_0301	54	LVQRLTRARQRITDP	LVQRLTRAR	0.4240	508.8		16.00
DRB1_0301	292	LSEQVLSRATERVRA	QVLSRATER	0.4233	512.8		16.00
DRB1_0301	478	RGHKMIIGMRGSYGG	MIIGMRGSY	0.4232	513.2		16.00
DRB1_0301	268	RSHAVTLNDKELNEE	HAVTLNDKE	0.4230	514.1		16.00
DRB1_0301	270	HAVTLNDKELNEESN	HAVTLNDKE	0.4230	514.4		16.00
DRB1_0301	453	LSPHVMGTDFGRLKA	VMGTDFGRL	0.4222	518.9		16.00
DRB1_0301	137	DDISTDVRRAPHAGG	DDISTDVRR	0.4207	527.2		16.00
DRB1_0301	425	AYQRSEALADDVARS	SEALADDVA	0.4201	530.7		16.00
DRB1_0301	515	AGLILGRMAYKEDKQ	LILGRMAYK	0.4192	536.2		16.00
DRB1_0301	49	NERGDLVQRLTRARQ	GDLVQRLTR	0.4191	536.4		16.00
DRB1_0301	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.4161	554.3		16.00
DRB1_0301	328	SVVNDPNLRDRRLASD	SVVNDPNLR	0.4159	555.5		16.00
DRB1_0301	38	LIDHTIAIAKLNERG	IDHTIAIAK	0.4153	559.0		16.00
DRB1_0301	104	VVITVVSYSQAQPSAR	VVITVVSYS	0.4114	582.9		16.00
DRB1_0301	417	AVGDNFVWAYQRSEA	FVWAYQRSE	0.4114	583.5		16.00
DRB1_0301	84	QLLNSLLNLPAAARVG	QLLNSLLNL	0.4109	586.4		16.00
DRB1_0301	255	RVPMPPIIAVSSLLRS	IIAVSSLLR	0.4090	598.5		16.00
DRB1_0301	439	SFADAGLDSVLSAEL	FADAGLDSV	0.4084	602.6		16.00
DRB1_0301	516	GLILGRMAYKEDKQN	LILGRMAYK	0.4067	613.3		16.00
DRB1_0301	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.4056	620.9		16.00
DRB1_0301	229	VVATKTDLYPRWREI	VVATKTDLY	0.4053	623.2		16.00
DRB1_0301	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.4046	627.7		16.00
DRB1_0301	477	RRGHKMIIGMRGSYG	MIIGMRGSY	0.4042	630.5		16.00
DRB1_0301	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.4040	631.6		16.00
DRB1_0301	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.4034	636.1		16.00
DRB1_0301	457	VMGTDFGRLKALGRM	VMGTDFGRL	0.4032	637.6		16.00
DRB1_0301	580	ITRSLTESLQATIAA	ITRSLTESL	0.4024	642.7		16.00
DRB1_0301	338	RLASDLERRKREAQQ	RLASDLERR	0.4016	648.5		16.00
DRB1_0301	513	VGAGLILGRMAYKED	GLILGRMAY	0.4008	654.4		16.00
DRB1_0301	476	LRRGHKMIIGMRGSY	GHKMIIGMR	0.4001	658.9		16.00
DRB1_0301	495	MIGMLSSVVGLGLFN	IGMLSSVVG	0.3987	669.4		16.00
DRB1_0301	528	KQRNLLRVRSEAKAN	LLRVRSEAK	0.3981	673.8		16.00
DRB1_0301	94	AARVGDDEATVVITV	AARVGDDEA	0.3972	680.0		16.00
DRB1_0301	514	GAGLILGRMAYKEDK	GLILGRMAY	0.3965	685.6		32.00
DRB1_0301	304	VRAGVLGEIRSATEQ	RAGVLGEIR	0.3963	686.7		32.00
DRB1_0301	442	DAGLDSVLSAELSPH	AGLDSVLSA	0.3952	695.0		32.00
DRB1_0301	63	QRITDPQVRVVIAGL	QRITDPQVR	0.3951	695.7		32.00
DRB1_0301	39	IDHTIAIAKLNERGD	IDHTIAIAK	0.3919	720.5		32.00
DRB1_0301	332	DNLRDLASDLERR	RDRLASDLE	0.3917	721.6		32.00
DRB1_0301	79	KQKGSQLLNSLLNLP	KSQLLNSLL	0.3915	723.2		32.00
DRB1_0301	92	LPAARVGDDEATVVI	AARVGDDEA	0.3915	723.6		32.00
DRB1_0301	318	QLAVSLGSELSVVND	LAVSLGSEL	0.3906	730.2		32.00
DRB1_0301	93	PAARVGDDEATVVIT	AARVGDDEA	0.3890	743.0		32.00
DRB1_0301	267	LRSHAVTLNDKELNE	HAVTLNDKE	0.3853	773.7		32.00
DRB1_0301	480	HKMIIGMRGSYGGVV	MIIGMRGSY	0.3841	783.5		32.00
DRB1_0301	322	SLGSELSVVNDPNLR	LSVVNDPNL	0.3839	784.9		32.00
DRB1_0301	105	VITVVSYSQAQPSARL	ITVVSYSQA	0.3826	796.4		32.00
DRB1_0301	118	RLVLAAGPDGTTAAV	VLAAGPDGT	0.3825	797.6		32.00
DRB1_0301	223	ICPVGAVVATKTDLY	VGAVVATKT	0.3823	799.1		32.00
DRB1_0301	421	NFVWAYQRSEALADD	NFVWAYQRS	0.3817	804.1		32.00
DRB1_0301	430	EALADDVARSFADAG	ALADDVARS	0.3811	809.7		32.00
DRB1_0301	496	IGMLSSVVGLGLFNP	IGMLSSVVG	0.3800	818.8		32.00
DRB1_0301	494	VMIGMLSSVVGLGLF	IGMLSSVVG	0.3793	825.1		32.00
DRB1_0301	241	REIVNANAHLQRAR	REIVNANAA	0.3762	853.7		32.00
DRB1_0301	48	LNERGDLVQRLTRAR	GDLVQRLTR	0.3754	861.3		32.00
DRB1_0301	106	ITVVSYSQAQPSARLV	ITVVSYSQA	0.3723	890.7		32.00
DRB1_0301	579	EITRSLTESLQATIA	ITRSLTESL	0.3721	892.7		32.00
DRB1_0301	517	LILGRMAYKEDKQNR	LILGRMAYK	0.3715	897.6		32.00
DRB1_0301	240	WREIVNANAHLQRA	REIVNANAA	0.3711	902.4		32.00

DRB1_0301	452	ELSPHVMGTDFGR LK	VMGTDFGR L	0.3707	906.3	32.00
DRB1_0301	581	TRSLTESLQATIAAA	TRSLTESLQ	0.3701	911.7	32.00
DRB1_0301	59	TRARQRITDPQVRV V	QRITDPQVR	0.3699	914.0	32.00
DRB1_0301	189	TVGLLPEADAVLVV S	LLPEADAVL	0.3695	917.5	32.00
DRB1_0301	103	TTVITVVSYSQAQPS A	VVITVVSYS	0.3669	943.4	32.00
DRB1_0301	55	VQRLTRARQRITDPQ	VQRLTRARQ	0.3669	944.1	32.00
DRB1_0301	320	AVSLGSELSVVNDPN	AVSLGSELS	0.3668	944.8	32.00
DRB1_0301	358	ALWQQVVLGDGFNDL T	WQQVVLGDGF	0.3667	945.9	32.00
DRB1_0301	447	SVLSAELSPHVMGTD	SAELSPHVM	0.3649	964.6	32.00
DRB1_0301	317	EQLAVSLGSELSVV N	AVSLGSELS	0.3632	982.1	32.00
DRB1_0301	117	ARLVLAAGPDGTTAA	VLAAGPDGT	0.3622	992.8	32.00
DRB1_0301	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.3622	993.7	32.00
DRB1_0301	527	DKQNRLLRVRSEAKA	RLLRVRSEA	0.3621	993.7	32.00
DRB1_0301	296	VLSRATERVRAGV L G	VLSRATERV	0.3609	1007.7	32.00
DRB1_0301	284	NFPAIVKFLSEQVLS	IVKFLSEQV	0.3603	1013.8	32.00
DRB1_0301	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.3601	1015.8	32.00
DRB1_0301	30	RRVGVIVELIDHTIA	VIVELIDHT	0.3586	1032.3	32.00
DRB1_0301	382	RFRTVTEDAERQIDS	FRTVTEDAE	0.3586	1032.5	32.00
DRB1_0301	376	DHDLRTRFRFTVTEDA	DHDLRTRFR	0.3584	1034.5	32.00
DRB1_0301	438	RSFADAGLDSVLSAE	FADAGLDSV	0.3581	1038.4	32.00
DRB1_0301	566	QRLLRDHYREIAEEI	QRLLRDHYR	0.3566	1054.9	32.00
DRB1_0301	47	KLNERGDLVQRLTRA	KLNERGDLV	0.3558	1063.9	32.00
DRB1_0301	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.3558	1064.6	32.00
DRB1_0301	303	RVRAGVLGEIRSATE	RAGVLGEIR	0.3554	1068.8	32.00
DRB1_0301	512	SVGAGLILGRMAYKE	GLILGRMAY	0.3541	1083.7	32.00
DRB1_0301	85	LLNSLLNLPAARVGD	SLNLPAAR	0.3530	1096.6	32.00
DRB1_0301	194	PEADAVLVVSDTSQE	AVLVVSDTS	0.3512	1118.8	32.00
DRB1_0301	248	AAHLQRARVPMP I IA	AAHLQRARV	0.3501	1132.3	32.00
DRB1_0301	553	VVSKQSRDR LKMIQR	VVSKQSRDR	0.3482	1155.6	32.00
DRB1_0301	416	TAVGDNFVWAYQRSE	DNFVWAYQR	0.3472	1167.8	32.00
DRB1_0301	481	KMIIGMRGSYGGVVM	MIIGMRGSY	0.3466	1176.1	32.00
DRB1_0301	308	VLGEIRSATEQLAVS	VLGEIRSAT	0.3456	1188.6	32.00
DRB1_0301	91	NLPAARVGDDEATVV	AARVGDDEA	0.3447	1199.7	32.00
DRB1_0301	239	RWREIVNANAHLQR	REIVNANAA	0.3439	1210.0	32.00
DRB1_0301	321	VSLGSELSVVNDPNL	VSLGSELSV	0.3433	1218.4	32.00
DRB1_0301	473	SKPLRRGHKMIIGMR	LRRGHKMI I	0.3429	1223.3	32.00
DRB1_0301	190	LGLLPEADAVLVVSD	LLPEADAVL	0.3415	1243.0	32.00
DRB1_0301	119	LVLAAGPDGTTAAVD	VLAAGPDGT	0.3411	1248.2	32.00
DRB1_0301	361	QQVVLGDGFNDLTADV	VLGDGFNDL	0.3402	1260.3	32.00
DRB1_0301	307	GVLGEIRSATEQLAV	VLGEIRSAT	0.3390	1275.9	32.00
DRB1_0301	381	TRFRTVTEDAERQID	FRTVTEDAE	0.3383	1285.9	32.00
DRB1_0301	191	GLLPEADAVLVVSDT	LLPEADAVL	0.3377	1294.6	32.00
DRB1_0301	188	ATLGLLPEADAVLVV	LLPEADAVL	0.3374	1298.3	32.00
DRB1_0301	107	TVVSYSQAQPSARLV L	SYSQAQPSAR	0.3373	1300.1	32.00
DRB1_0301	362	QVLGDGFNDLTADV D	VLGDGFNDL	0.3368	1307.7	32.00
DRB1_0301	129	TAAVDIPVDDISTDV	VDIPVDDIS	0.3351	1332.1	32.00
DRB1_0301	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.3337	1352.0	32.00
DRB1_0301	380	RTRFRTVTEDAERQI	FRTVTEDAE	0.3334	1356.5	32.00
DRB1_0301	462	FGRLKALGRMESKPL	FGRLKALGR	0.3330	1362.7	32.00
DRB1_0301	474	KPLRRGHKMIIGMRG	KPLRRGHKM	0.3329	1363.1	32.00
DRB1_0301	441	ADAGLDSVLSAELSP	AGLDSVLSA	0.3321	1375.1	32.00
DRB1_0301	493	VVMIGMLSSVVGLGL	IGMLSSVVG	0.3318	1379.6	32.00
DRB1_0301	247	NAAHLQRARVPMP I I	AAHLQRARV	0.3314	1385.5	32.00
DRB1_0301	254	ARVPMP I IAVSLLR	I IAVSLLR	0.3314	1385.9	32.00
DRB1_0301	331	NDPNLRDR LADLER	RDR LADLE	0.3309	1392.8	32.00
DRB1_0301	377	HDLRTRFRTVTEDAE	LRTRFRTVT	0.3303	1402.6	32.00
DRB1_0301	470	RMESKPLRRGHKMI I	RMESKPLRR	0.3301	1405.4	32.00
DRB1_0301	78	LKQGKSQLLNSLLNL	KSQLLNSLL	0.3289	1424.1	32.00
DRB1_0301	519	LGRMAYKEDKQNRLL	RMAYKEDKQ	0.3284	1432.3	32.00
DRB1_0301	238	PRWREIVNANAHLQ	REIVNANAA	0.3266	1459.5	32.00
DRB1_0301	74	IAGLLKQGKSQLLNS	IAGLLKQGK	0.3264	1462.2	32.00
DRB1_0301	192	LLPEADAVLVVSDTS	LLPEADAVL	0.3263	1464.4	32.00
DRB1_0301	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.3262	1466.4	32.00
DRB1_0301	64	RITDPQVRVVIAGLL	RITDPQVRV	0.3254	1478.9	32.00
DRB1_0301	578	EEITRSLTESLQATI	ITRSLTESL	0.3231	1516.4	32.00
DRB1_0301	43	IAIAKLNERGDLVQR	IAIAKLNER	0.3228	1521.4	32.00
DRB1_0301	58	LTRARQRITDPQVRV	QRITDPQVR	0.3223	1529.2	32.00
DRB1_0301	497	GMLSSVVGLGLFNPL	MLSSVVGLG	0.3215	1541.8	32.00
DRB1_0301	379	LRTRFRTVTEDAERQ	FRTVTEDAE	0.3215	1542.0	32.00
DRB1_0301	186	LSATLGLLPEADAVL	LLPEADAVL	0.3214	1544.4	32.00

DRB1_0301	467	ALGRMESKPLRRGHK	RMESKPLRR	0.3203	1562.5	32.00
DRB1_0301	329	VVNDPNLRDRLASDL	VVNDPNLRD	0.3200	1567.2	32.00
DRB1_0301	383	FRTVTEDAERQIDSC	FRTVTEDAE	0.3199	1569.6	32.00
DRB1_0301	108	VVSYSAQPSARLVLA	SYSAQPSAR	0.3187	1589.5	32.00
DRB1_0301	46	AKLNERGDLVQRLTR	KLNERGDLV	0.3187	1590.3	32.00
DRB1_0301	357	TALWQQVLGDGFNDL	WQQVLGDGF	0.3182	1598.4	32.00
DRB1_0301	363	VLGDGFNDLTADVHD	VLGDGFNDL	0.3164	1629.5	32.00
DRB1_0301	95	ARVGDDEATVVITVV	RVGDDEATV	0.3163	1631.2	32.00
DRB1_0301	302	ERVVRAGVLGEIRSAT	RAGVLGEIR	0.3161	1636.1	32.00
DRB1_0301	520	GRMAYKEDKQNRLLR	RMAYKEDKQ	0.3154	1648.4	32.00
DRB1_0301	465	KALGRMESKPLRRG	RMESKPLR	0.3151	1653.6	32.00
DRB1_0301	466	KALGRMESKPLRRGH	RMESKPLRR	0.3151	1653.8	32.00
DRB1_0301	437	ARSFADAGLDSVLSA	FADAGLDSV	0.3142	1669.8	32.00
DRB1_0301	193	LPEADAVLVVSDTSQ	LPEADAVLV	0.3136	1680.8	32.00
DRB1_0301	469	GRMESKPLRRGHKMI	RMESKPLRR	0.3105	1736.8	32.00
DRB1_0301	102	ATVVITVVSYSQAQPS	VVITVVSYS	0.3100	1746.6	32.00
DRB1_0301	554	VSKQSRDRLKMIQRL	VSKQSRDRL	0.3090	1766.3	32.00
DRB1_0301	468	LGRMESKPLRRGHKM	RMESKPLRR	0.3080	1785.6	32.00
DRB1_0301	378	DLRTRFRFRTVTEDAER	LRTRFRFRTV	0.3074	1797.2	32.00
DRB1_0301	582	RSLTESLQATIAAAQ	RSLTESLQA	0.3073	1797.9	32.00
DRB1_0301	271	AVTLNDKELNEESNF	AVTLNDKEL	0.3068	1809.4	32.00
DRB1_0301	450	SAELSPHVMGTDGFR	SAELSPHVM	0.3063	1817.6	32.00
DRB1_0301	448	VLSAELSPHVMGTDG	SAELSPHVM	0.3061	1822.7	32.00
DRB1_0301	577	AEEITRSLTESLQAT	AEIITRSLT	0.3056	1832.0	32.00
DRB1_0301	458	MGTDFGRLKALGRME	MGTDFGRLK	0.3051	1841.8	32.00
DRB1_0301	246	ANAAHLQARARVPMPI	AAHLQARARV	0.3040	1863.2	32.00
DRB1_0301	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.3038	1867.4	32.00
DRB1_0301	109	VSYSAQPSARLVLAA	SYSAQPSAR	0.3037	1870.3	32.00
DRB1_0301	211	EPEMWFVRQAHQICP	MWFVRQAHQ	0.3016	1913.0	32.00
DRB1_0301	475	PLRRGHKMIIGMRGS	LRRGHKMI I	0.3016	1913.4	32.00
DRB1_0301	460	TFGRLLKALGRMESK	FGRLKALGR	0.3014	1917.9	32.00
DRB1_0301	330	VNDPNLRDRLASDLE	PNLRDRLAS	0.3013	1919.3	32.00
DRB1_0301	86	LNSLLNLPAARVGDD	SLLNLPAAAR	0.3012	1920.8	32.00
DRB1_0301	518	ILGRMAYKEDKQNRLL	RMAYKEDKQ	0.3009	1927.2	32.00
DRB1_0301	424	WAYQRSEALADDVAR	SEALADDVA	0.3008	1928.8	32.00
DRB1_0301	472	ESKPLRRGHKMIIGM	LRRGHKMI I	0.3004	1937.5	32.00
DRB1_0301	187	SATLGLLPEADAVLV	LRPEADAVL	0.3002	1942.9	32.00
DRB1_0301	138	DISTDVRRAPHAGGR	DISTDVRRRA	0.2995	1956.8	50.00
DRB1_0301	526	EDKQNRLLRVRSEAK	QNRLLRVRS	0.2995	1957.0	50.00
DRB1_0301	461	DFGRLLKALGRMESKP	FGRLKALGR	0.2994	1960.0	50.00
DRB1_0301	464	RLKALGRMESKPLRR	GRMESKPLR	0.2991	1965.2	50.00
DRB1_0301	212	PEMWFVRQAHQICPV	MWFVRQAHQ	0.2964	2024.5	50.00
DRB1_0301	511	LSVGAGLILGRMAYK	VGAGLILGR	0.2943	2070.9	50.00
DRB1_0301	364	LGDGFDLTDADVHD	FNDLTDADV	0.2932	2096.3	50.00
DRB1_0301	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.2918	2126.1	50.00
DRB1_0301	555	SKQSRDRLKMIQRL	RDRLKMIQR	0.2918	2126.4	50.00
DRB1_0301	73	VIAGLLKQGKSQLLN	IAGLLKQGK	0.2917	2128.6	50.00
DRB1_0301	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.2917	2129.2	50.00
DRB1_0301	449	LSAELSPHVMGTDG	SAELSPHVM	0.2908	2151.3	50.00
DRB1_0301	309	LGEIRSATEQLAVSL	LGEIRSATE	0.2904	2158.7	50.00
DRB1_0301	116	SARLVLAAGPDGTTA	LVLAAGPDG	0.2900	2169.6	50.00
DRB1_0301	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.2898	2174.5	50.00
DRB1_0301	533	LVRSEAKANVRRFV	RSEAKANVR	0.2895	2181.5	50.00
DRB1_0301	482	MIIGMRGSYGGVMI	MIIGMRGSY	0.2891	2189.9	50.00
DRB1_0301	96	RVGDDEATVVITVVS	RVGDDEATV	0.2886	2201.7	50.00
DRB1_0301	521	RMAYKEDKQNRLLRV	RMAYKEDKQ	0.2869	2244.1	50.00
DRB1_0301	538	EAKANVRRFVDDISF	VRRFVDDIS	0.2863	2258.4	50.00
DRB1_0301	567	RLLRDHYREIAEIT	RLLRDHYRE	0.2857	2272.3	50.00
DRB1_0301	459	GTDFGRLLKALGRMES	FGRLKALGR	0.2850	2290.6	50.00
DRB1_0301	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.2839	2316.9	50.00
DRB1_0301	6	CAYRDLRRKRARKWG	CAYRDLRRK	0.2837	2321.3	50.00
DRB1_0301	21	DTVTQPDDPRRVGVI	DTVTQPDDP	0.2827	2346.2	50.00
DRB1_0301	451	AELSPHVMGTDGFL	SPHVMGTDG	0.2816	2374.8	50.00
DRB1_0301	213	EMWFVRQAHQICPVG	MWFVRQAHQ	0.2800	2417.5	50.00
DRB1_0301	339	LASDLERRKREAAQA	LASDLERRK	0.2798	2421.5	50.00
DRB1_0301	57	RLTRARQRITDPQVR	RLTRARQRI	0.2772	2490.0	50.00
DRB1_0301	431	ALADDVARSFADAGL	ALADDVARS	0.2762	2518.1	50.00
DRB1_0301	72	VVIAGLLKQGKSQLL	IAGLLKQGK	0.2760	2524.5	50.00
DRB1_0301	90	LNLPAARVGDDEATV	RVGDDEATV	0.2760	2525.1	50.00
DRB1_0301	45	IAKLNERGDLVQRLT	KLNERGDLV	0.2756	2533.6	50.00

DRB1_0301	612	QLGILSQVNDNLAGL	ILSQVNDNL	0.2752	2544.6	50.00
DRB1_0301	20	GDTVVTQPDDPRRVGV	DTVVTQPDDP	0.2749	2555.0	50.00
DRB1_0301	87	NSLLNLPAARVGDDDE	SLLNLPAAR	0.2744	2566.7	50.00
DRB1_0301	163	SPLLRRGGLAFIDTPG	SPLLRRGGLA	0.2735	2592.2	50.00
DRB1_0301	388	EDLQRQIDSCDPTAH	RQIDSCDPT	0.2732	2602.2	50.00
DRB1_0301	237	YPRWREIVNANAHL	REIVNANAA	0.2731	2602.9	50.00
DRB1_0301	128	TTAAVDIPVDDISTD	VDIPVDDIS	0.2731	2605.3	50.00
DRB1_0301	576	IAEEITRSLTESLQA	AEEITRSLT	0.2730	2607.6	50.00
DRB1_0301	29	PRRVGVIVELIDHTI	VIVELIDHT	0.2722	2628.6	50.00
DRB1_0301	611	FQLGILSQVNDNLAG	FQLGILSQV	0.2682	2747.3	50.00
DRB1_0301	422	RVLWAYQRSEALADDV	RVLWAYQRSE	0.2667	2792.0	50.00
DRB1_0301	210	TEPEMWFVRQAHQIC	MWFVRQAHQ	0.2660	2813.6	50.00
DRB1_0301	492	GVVMIGMLSSVVG LG	IGMLSSVVG	0.2656	2825.7	50.00
DRB1_0301	75	AGLLKQGKSQLLNSL	LLKQGKSQ	0.2655	2826.3	50.00
DRB1_0301	242	EIVNANAHLQRARV	IVNANAHL	0.2650	2842.3	50.00
DRB1_0301	56	QLRTRARQRITDPQV	RLTRARQRI	0.2650	2843.9	50.00
DRB1_0301	613	LGILSQVNDNLAGLE	ILSQVNDNL	0.2633	2894.9	50.00
DRB1_0301	245	NANAHLQRARVPMP	AAHLQRARV	0.2628	2911.6	50.00
DRB1_0301	471	MESKPLRRGHKMIIG	KPLRRGHKM	0.2610	2969.4	50.00
DRB1_0301	152	REVLRVEVGAPSP LL	REVLRVEVG	0.2585	3049.0	50.00
DRB1_0301	101	EATVVITVVSYSAPQ	VVITVVSYS	0.2556	3145.7	50.00
DRB1_0301	44	AIAKLNERGDLVQRL	KLNERGDLV	0.2553	3157.4	50.00
DRB1_0301	88	SLLNLPAARVGDDDEA	SLLNLPAAR	0.2549	3170.1	50.00
DRB1_0301	71	RVVIAGLLKQGKSQ	IAGLLKQGK	0.2548	3173.3	50.00
DRB1_0301	19	WGDTVVTQPDDPRRVG	VTQPDDPRR	0.2548	3175.2	50.00
DRB1_0301	162	PSPLLRRGGLAFIDTP	SPLLRRGGLA	0.2545	3183.2	50.00
DRB1_0301	625	GLEPTLTTPRASLGRA	PTLTTPRASL	0.2532	3230.7	50.00
DRB1_0301	615	ILSQVNDNLAGLEPT	ILSQVNDNL	0.2531	3232.8	50.00
DRB1_0301	614	GILSQVNDNLAGLEP	ILSQVNDNL	0.2529	3240.1	50.00
DRB1_0301	183	QPHLSATLGLLPEAD	QPHLSATLG	0.2518	3277.7	50.00
DRB1_0301	574	REIAEEITRSLTESL	REIAEEITR	0.2514	3292.4	50.00
DRB1_0301	151	GREVLRVEVGAPSP L	REVLRVEVG	0.2512	3302.2	50.00
DRB1_0301	436	VARSFADAGLDSVLS	SFADAGLDS	0.2508	3316.4	50.00
DRB1_0301	159	VGAPSPLLRGGLAFI	VGAPSPLLR	0.2493	3369.7	50.00
DRB1_0301	70	VRVVIAGLLKQGKSQ	VRVVIAGLL	0.2479	3420.0	50.00
DRB1_0301	403	WAEIGNDVENAIATA	WAEIGNDVE	0.2471	3448.5	50.00
DRB1_0301	283	WNFPALVKFLSEQVL	IAKFLSEQV	0.2471	3451.7	50.00
DRB1_0301	463	GRLKALGRMESKPLR	LKALGRMES	0.2469	3459.1	50.00
DRB1_0301	41	HTIAIAKLNERGDLV	IAIAKLNER	0.2466	3467.5	50.00
DRB1_0301	597	VAETERDNRIRELQR	VAETERDNR	0.2460	3490.0	50.00
DRB1_0301	610	QRQLGILSQVNDNLA	QLGILSQVN	0.2458	3500.8	50.00
DRB1_0301	146	APHAGGREVLRVEVG	HAGGREVLR	0.2452	3522.0	50.00
DRB1_0301	214	MWFVRQAHQICPVGA	MWFVRQAHQ	0.2445	3547.7	50.00
DRB1_0301	297	LSRATERVRAGVLGE	LSRATERVR	0.2439	3573.3	50.00
DRB1_0301	423	VWAYQRSEALADDVA	VWAYQRSEA	0.2421	3640.8	50.00
DRB1_0301	18	KWGDTVVTQPDDPRRV	DTVVTQPDDP	0.2404	3708.5	50.00
DRB1_0301	110	SYSAQPSARLVLAAG	SYSAQPSAR	0.2404	3709.7	50.00
DRB1_0301	77	LLKQGKSQLLNSLLN	LLKQGKSQ	0.2385	3786.7	50.00
DRB1_0301	525	KEDKQNRLLLRVSEA	RLLRVSEA	0.2384	3789.2	50.00
DRB1_0301	510	PLSVGAGLILGRMAY	VGAGLILGR	0.2376	3822.2	50.00
DRB1_0301	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.2357	3902.6	50.00
DRB1_0301	243	IVNANAHLQRARVP	IVNANAHL	0.2344	3959.4	50.00
DRB1_0301	148	HAGGREVLRVEVGAP	HAGGREVLR	0.2337	3989.4	50.00
DRB1_0301	534	RVRSEAKANVRRFVD	RSEAKANVR	0.2332	4009.2	50.00
DRB1_0301	182	GQPHLSATLGLLPEA	QPHLSATLG	0.2328	4026.7	50.00
DRB1_0301	67	DPQVRVVIAGLLKQ	DPQVRVVI	0.2326	4037.8	50.00
DRB1_0301	596	QVAETERDNRIRELQ	VAETERDNR	0.2322	4055.5	50.00
DRB1_0301	402	HWAEIGNDVENAIAT	WAEIGNDVE	0.2322	4055.8	50.00
DRB1_0301	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.2319	4068.9	50.00
DRB1_0301	115	PSARLVLAAGPDGTT	LVLAAGPDG	0.2318	4069.6	50.00
DRB1_0301	222	QICPVGAVVATKTDL	VGAVVATKT	0.2311	4101.3	50.00
DRB1_0301	69	QVRVVIAGLLKQGKS	RVVIAGLLK	0.2302	4140.6	50.00
DRB1_0301	584	LTVESLQATIAAAQVA	LVESLQATI	0.2301	4144.9	50.00
DRB1_0301	161	APSPLLRRGGLAFIDT	SPLLRRGGLA	0.2301	4147.7	50.00
DRB1_0301	498	MLSSVVGLGLFNPLS	MLSSVVGLG	0.2298	4160.8	50.00
DRB1_0301	153	EVLRVEVGAPSP LLR	RVEVGAPSP	0.2297	4165.0	50.00
DRB1_0301	575	EIAEEITRSLTESLQ	AEEITRSLT	0.2281	4238.9	50.00
DRB1_0301	154	VLRVEVGAPSP LLRG	LRVEVGAP	0.2278	4253.8	50.00
DRB1_0301	127	GTAAVDIPVDDIST	GTAAVDIP	0.2271	4285.1	50.00
DRB1_0301	415	ATAVGDNFVWAYQRS	DNFVWAYQR	0.2269	4292.2	50.00

DRB1_0301	595	AQVAETERDNRIREL	VAETERDNR	0.2269	4294.5	50.00
DRB1_0301	535	VRSEAKANVRRFVDD	RSEAKANVR	0.2239	4434.6	50.00
DRB1_0301	181	LGQPHLSATLGLLPE	QPHLSATLG	0.2237	4442.3	50.00
DRB1_0301	272	VTLNQDKELNEESNFP	VTLNQDKELN	0.2235	4452.4	50.00
DRB1_0301	17	RKWGDTVTQPDDPRR	DRVTPQDDP	0.2232	4469.4	50.00
DRB1_0301	315	ATEQLAVSLGSELSV	QLAVSLGSE	0.2231	4472.8	50.00
DRB1_0301	585	TESLQATIAAAQVAE	SLQATIAAA	0.2230	4479.3	50.00
DRB1_0301	583	SLTESLQATIAAAQV	LTESLQATI	0.2229	4484.8	50.00
DRB1_0301	145	RAPHAGGREVLRVEV	HAGGREVLR	0.2227	4492.6	50.00
DRB1_0301	156	RVEVGAPSPLLRGGL	VGAPSPLLR	0.2223	4512.7	50.00
DRB1_0301	155	LQVQVGVVIAAGLLKQ	RVEVGAPSP	0.2218	4538.2	50.00
DRB1_0301	66	TDPQVRVVIAGLLKQ	DPQVRVVIA	0.2216	4544.3	50.00
DRB1_0301	150	GGREVLRVEVGAPSP	REVL RVEVG	0.2214	4554.5	50.00
DRB1_0301	624	AGLEPTLTPRASLGR	PTLTPRASL	0.2213	4561.7	50.00
DRB1_0301	586	ESLQATIAAAQVAET	SLQATIAAA	0.2205	4601.2	50.00
DRB1_0301	147	PHAGGREVLRVEVGA	HAGGREVLR	0.2194	4655.8	50.00
DRB1_0301	311	EIRSATEQLAVSLGS	IRSATEQLA	0.2194	4655.8	50.00
DRB1_0301	609	LQRQLGILSQVNDNL	RQLGILSQV	0.2185	4702.7	50.00
DRB1_0301	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.2180	4729.4	50.00
DRB1_0301	414	IATAVGDNFVWAYQR	IATAVGDNF	0.2161	4826.4	50.00
DRB1_0301	7	AYRDLRRKRARKWGD	YRDLRRKRA	0.2160	4829.3	50.00
DRB1_0301	310	GEIRSATEQLAVSLG	IRSATEQLA	0.2159	4836.1	50.00
DRB1_0301	68	PQVRVVIAGLLKQGK	VRVVIAGLL	0.2148	4894.8	50.00
DRB1_0301	165	LLRGGLAFIDTPGVG	GGGLAFIDTP	0.2144	4916.7	50.00
DRB1_0301	236	LYPRWREIVNANAHA	PRWREIVNA	0.2142	4923.9	50.00
DRB1_0301	40	DHTIAIAKLNERGDL	IAIAKLNER	0.2137	4951.5	50.00
DRB1_0301	149	AGGREVLRVEVGAPS	REVL RVEVG	0.2130	4989.5	50.00
DRB1_0301	568	LLRDHYREIAEEITR	LLRDHYREI	0.2127	5007.1	50.00
DRB1_0301	435	DVARSFADAGLDSVL	SFADAGLDS	0.2126	5013.3	50.00
DRB1_0301	536	RSEAKANVRRFVDDI	RSEAKANVR	0.2116	5067.6	50.00
DRB1_0301	76	GLLKQGKSQLLNSLL	LLKQGKSQL	0.2093	5195.0	50.00
DRB1_0301	184	PHLSATLGLLPEADA	LSATLGLLP	0.2077	5281.6	50.00
DRB1_0301	594	AAQVAETERDNRIRE	VAETERDNR	0.2074	5303.5	50.00
DRB1_0301	401	AHWAEIGNDVENAI	WAEIGNDVE	0.2072	5312.4	50.00
DRB1_0301	65	ITDPQVRVVIAGLLK	DPQVRVVIA	0.2066	5349.2	50.00
DRB1_0301	209	FTEPEMWFVVRQAHQI	EPEMWFVVRQ	0.2064	5358.5	50.00
DRB1_0301	250	HLQARVPMPIIAVS	LQARVPMPI	0.2057	5397.5	50.00
DRB1_0301	185	HLSATLGLLPEADAV	HLSATLGLL	0.2055	5412.7	50.00
DRB1_0301	158	EVGAPSPLLRGGLAF	VGAPSPLLR	0.2046	5462.1	50.00
DRB1_0301	244	VNANAHLQARVPM	AAHLQARV	0.2037	5515.7	50.00
DRB1_0301	249	AHLQARVPMPIIAV	HLQARVPM	0.2021	5616.9	50.00
DRB1_0301	573	YREIAEEITRSLTES	REIAEEITR	0.2020	5621.7	50.00
DRB1_0301	164	PNLRGGLAFIDTPGV	GGGLAFIDTP	0.2015	5651.8	50.00
DRB1_0301	620	NDNLAGLEPTLTPRA	NDNLGLEPT	0.1986	5833.2	50.00
DRB1_0301	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.1983	5850.8	50.00
DRB1_0301	623	LAGLEPTLTPRASLG	LAGLEPTLT	0.1976	5891.6	50.00
DRB1_0301	215	WFVVRQAHQICPVGAV	WFVVRQAHQI	0.1976	5895.4	50.00
DRB1_0301	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.1970	5930.2	50.00
DRB1_0301	622	NVLAGLEPTLTPRASL	LAGLEPTLT	0.1964	5970.3	50.00
DRB1_0301	22	TLTQPDDPRRVGVIV	VTQPDDPRR	0.1956	6025.1	50.00
DRB1_0301	89	LLNLPAARVGDEAT	LLNLPAARV	0.1950	6064.9	50.00
DRB1_0301	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.1947	6079.8	50.00
DRB1_0301	160	GAPSPLLRGGLAFID	SPLL RGGLA	0.1937	6150.5	50.00
DRB1_0301	587	SLQATIAAAQVAETE	LQATIAAAQ	0.1931	6189.1	50.00
DRB1_0301	621	DNLAGLEPTLTPRAS	LAGLEPTLT	0.1923	6243.0	50.00
DRB1_0301	356	QTALWQQVLDGDFND	WQQVLDGDF	0.1913	6313.8	50.00
DRB1_0301	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.1911	6323.0	50.00
DRB1_0301	524	YKEDKQNRLLRVRSE	DKQNRLLRV	0.1904	6374.0	50.00
DRB1_0301	180	GLGQPHLSATLGLLP	QPHLSATLG	0.1893	6450.4	50.00
DRB1_0301	114	QPSARLVLAAGPDGT	LVLAAGPDG	0.1892	6456.1	50.00
DRB1_0301	301	TERVRAGVLGEIRSA	RAGVLGEIR	0.1882	6525.9	50.00
DRB1_0301	157	VNDGAPSPLLRGGLA	VGAPSPLLR	0.1859	6688.9	50.00
DRB1_0301	619	VEVNLAGLEPTLTPR	NLAGLEPTL	0.1859	6690.6	50.00
DRB1_0301	572	HYREIAEEITRSLTE	REIAEEITR	0.1853	6732.7	50.00
DRB1_0301	15	RARKWGDVTVTQPDDP	RARKWGDVT	0.1836	6855.3	50.00
DRB1_0301	28	DPRRVGVIVELIDHT	VIVELIDHT	0.1821	6972.0	50.00
DRB1_0301	235	DLYPRWREIVNANA	PRWREIVNA	0.1813	7033.5	50.00
DRB1_0301	413	AIATAVGDNFVWAYQ	IATAVGDNF	0.1812	7038.4	50.00
DRB1_0301	220	AHQICPVGAVVATKT	ICPVGAVVA	0.1810	7054.3	50.00
DRB1_0301	598	AETERDNRIRELQRQ	AETERDNR	0.1809	7061.5	50.00

DRB1_0301	144	RRAPHAGGREVLRVE	HAGGREVLR	0.1797	7151.4	50.00
DRB1_0301	588	LQATIAAAQVAETER	LQATIAAAQ	0.1786	7238.4	50.00
DRB1_0301	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.1782	7271.3	50.00
DRB1_0301	384	RTVTEDAERQIDSCD	RTVTEDAER	0.1779	7293.4	50.00
DRB1_0301	100	DEATVVITVVSYSQA	VVITVVSYS	0.1776	7318.4	50.00
DRB1_0301	253	RARVPMPIIAVSSLL	MPIIAVSSL	0.1768	7379.0	50.00
DRB1_0301	139	ISTDVRRAPHAGGRE	ISTDVRRAP	0.1763	7425.2	50.00
DRB1_0301	618	QVNDNLAGLEPTLTP	QVNDNLAGL	0.1763	7425.7	50.00
DRB1_0301	400	TAHWAEIGNDVENAI	WAEIGNDVE	0.1752	7513.4	50.00
DRB1_0301	221	HQICPVGAVVATKTD	VGAVVATKT	0.1741	7602.8	50.00
DRB1_0301	434	DDVARSFADAGLDSV	VARSFADAG	0.1740	7613.0	50.00
DRB1_0301	617	SQVNDNLAGLEPTLT	QVNDNLAGL	0.1733	7666.1	50.00
DRB1_0301	491	GGVVMIGMLSSVVGL	GMLSSVVGL	0.1728	7707.0	50.00
DRB1_0301	8	YRDLRRKRARKWGDT	YRDLRRKRA	0.1716	7806.8	50.00
DRB1_0301	603	DNRIRELQRQLGILS	DNRIRELQR	0.1678	8137.7	50.00
DRB1_0301	593	AAAQVAETERDNRIR	VAETERDNR	0.1665	8256.4	50.00
DRB1_0301	312	IRSAEQQLAVSLGSE	IRSAEQQLA	0.1657	8322.6	50.00
DRB1_0301	523	AYKEDKQNRLLRVR	YKEDKQNR	0.1655	8345.4	50.00
DRB1_0301	571	DHYREIAEEITRSLT	REIAEEITR	0.1653	8359.9	50.00
DRB1_0301	509	NPLSVGAGLILGRMA	VGAGLILGR	0.1652	8369.1	50.00
DRB1_0301	282	ESNFPPIVVKFLSEQV	IVKFLSEQV	0.1648	8408.3	50.00
DRB1_0301	113	AQPSARLVLAAGPDG	AQPSARLV	0.1645	8428.9	50.00
DRB1_0301	14	KRARKWGDTVTQPDD	RARKWGDTV	0.1643	8456.0	50.00
DRB1_0301	412	NIATAVGDNFWWAY	IATAVGDNF	0.1623	8635.9	50.00
DRB1_0301	386	VTEAERQIDSCDPT	RQIDSCDPT	0.1622	8646.9	50.00
DRB1_0301	219	QAHQICPVGAVVATK	ICPVGAVVA	0.1621	8652.0	50.00
DRB1_0301	592	IAAAQVAETERDNR	IAAAQVAET	0.1618	8679.6	50.00
DRB1_0301	604	NRIRELQRQLGILSQ	IRELQRQLG	0.1615	8707.5	50.00
DRB1_0301	404	AEIGNDVENAIATAV	IGNDVENAI	0.1615	8708.1	50.00
DRB1_0301	602	RDNRIRELQRQLGIL	RIRELQRQL	0.1603	8826.9	50.00
DRB1_0301	16	ARKWGDTVTQPDDPR	RKWGDTVTQ	0.1595	8897.6	50.00
DRB1_0301	126	DGTTAAVDIPVDDIS	GTAAVDIP	0.1590	8947.8	50.00
DRB1_0301	537	SEAKANVRRFVDDIS	VRRFVDDIS	0.1579	9062.1	50.00
DRB1_0301	273	TLNDKELNEESNFPA	TLNDKELNE	0.1578	9069.0	50.00
DRB1_0301	23	VTQPDDPRRVGVIVE	VTQPDDPRR	0.1572	9128.0	50.00
DRB1_0301	605	IRELQRQLGILSQV	IRELQRQLG	0.1571	9134.4	50.00
DRB1_0301	340	ASDLERRKREAQQAV	ASDLERRKR	0.1564	9203.3	50.00
DRB1_0301	608	ELQRQLGILSQVNDN	RQLGILSQV	0.1559	9252.4	50.00
DRB1_0301	405	EIGNDVENAIATAVG	IGNDVENAI	0.1555	9290.8	50.00
DRB1_0301	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.1548	9362.2	50.00
DRB1_0301	570	RDHYREIAEEITRSL	REIAEEITR	0.1541	9440.5	50.00
DRB1_0301	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.1526	9593.0	50.00
DRB1_0301	599	EDEATNRIRELQRQL	TERDNRIRE	0.1514	9715.9	50.00
DRB1_0301	99	DEATVVITVVSYSQA	VVITVVSYS	0.1514	9716.2	50.00
DRB1_0301	179	GGLGQPHLSATLGLL	QPHLSATLG	0.1509	9770.4	50.00
DRB1_0301	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.1507	9796.3	50.00
DRB1_0301	355	QQTALWQQVLGDGFN	WQQVLGDGF	0.1500	9870.3	50.00
DRB1_0301	143	VRRAPHAGGREVLRV	APHAGGREV	0.1494	9925.7	50.00
DRB1_0301	433	ADDVARSFADAGLDS	VARSFADAG	0.1491	9965.1	50.00
DRB1_0301	507	LGNPLSVGAGLILGR	LVNPLSVGA	0.1483	10047.4	50.00
DRB1_0301	208	EFTEPEMWFVRQAHQ	EPEMWFVRQ	0.1479	10095.6	50.00
DRB1_0301	393	QIDSCDPTAHWAEIG	IDSCDPTAH	0.1478	10102.6	50.00
DRB1_0301	230	VATKTDLYPRWREIV	ATKTDLYPR	0.1473	10158.9	50.00
DRB1_0301	600	TERDNRIRELQRQLG	TERDNRIRE	0.1452	10388.7	50.00
DRB1_0301	13	RKRARKWGDTVTQPD	RARKWGDTV	0.1451	10402.1	50.00
DRB1_0301	503	VGLRFLFNPLSVGAGL	LGLFNPLSV	0.1449	10426.8	50.00
DRB1_0301	432	LADDVARSFADAGLD	LADDVARSF	0.1447	10443.0	50.00
DRB1_0301	234	TDLYPRWREIVNANA	PRWREIVNA	0.1446	10459.3	50.00
DRB1_0301	206	SQEFTEPEMWFVRQA	SQEFTEPEM	0.1440	10532.1	50.00
DRB1_0301	314	SATEQLAVSLGSELS	TEQLAVSLG	0.1433	10612.1	50.00
DRB1_0301	125	PDGTTAAVDIPVDDI	GTAAVDIP	0.1422	10737.9	50.00
DRB1_0301	499	LSSRVVGLGLFNPLSV	LSSRVVGLGL	0.1422	10739.9	50.00
DRB1_0301	251	LQRARVGLMPIIAVSS	LQRARVGLP	0.1402	10970.4	50.00
DRB1_0301	97	VGDDEATVVITVVSYS	VGDDEATVV	0.1397	11030.5	50.00
DRB1_0301	601	ERDNRIRELQRQLGI	DNRIRELQR	0.1383	11197.5	50.00
DRB1_0301	178	VGGLGQPHLSATLGL	VGGLGQPHL	0.1379	11240.1	50.00
DRB1_0301	9	RDLRRKRARKWGDTV	RDLRRKRAR	0.1346	11660.2	50.00
DRB1_0301	406	IGNDVENAIATAVGD	IGNDVENAI	0.1344	11674.8	50.00
DRB1_0301	205	TSQEFTEPEMWFVRQ	SQEFTEPEM	0.1339	11744.9	50.00
DRB1_0301	203	SDTSQEFTEPEMWFV	SQEFTEPEM	0.1336	11777.8	50.00

DRB1_0301	217	VRQAHQICPVGAVVA	VRQAHQICP	0.1335	11792.4	50.00
DRB1_0301	385	TVTEDAERQIDSCDP	TVTEDAERQ	0.1326	11908.9	50.00
DRB1_0301	218	RQAHQICPVGAVVAT	AHQICPVGA	0.1323	11944.5	50.00
DRB1_0301	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.1321	11978.1	50.00
DRB1_0301	606	IRELQRQLGILSQVN	IRELQRQLG	0.1307	12161.5	50.00
DRB1_0301	591	TIAAAQVAETERDNR	IAAAQVAET	0.1296	12306.7	50.00
DRB1_0301	341	SDLERRKREAQQAVQ	DLERRKREA	0.1287	12422.3	50.00
DRB1_0301	569	LRDHYREIAEETRS	RDHYREIAE	0.1281	12502.0	50.00
DRB1_0301	411	ENAIATAVGDNFVWA	IATAVGDNF	0.1273	12614.3	50.00
DRB1_0301	204	RSQEFTEPEMWFVR	SQEFTEPEM	0.1270	12658.3	50.00
DRB1_0301	313	DSATEQLAVSLGSEL	RSATEQLAV	0.1267	12699.7	50.00
DRB1_0301	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.1258	12822.9	50.00
DRB1_0301	232	TKTDLYPRWREIVNA	TKTDLYPRW	0.1248	12954.8	50.00
DRB1_0301	233	KTDLYPRWREIVNAN	LYPRWREIV	0.1247	12968.5	50.00
DRB1_0301	112	SAQPSARLVLAAGPD	AQPSARLVL	0.1246	12983.8	50.00
DRB1_0301	231	ATKTDLYPRWREIVN	ATKTDLYPR	0.1243	13023.9	50.00
DRB1_0301	298	SRATERVRAGVLGEI	SRATERVRA	0.1235	13135.2	50.00
DRB1_0301	490	YGGVVMIGMLSSVVG	GVVMIGMLS	0.1227	13257.7	50.00
DRB1_0301	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.1223	13316.5	50.00
DRB1_0301	202	VSDTSQEFTEPEMWF	VSDTSQEF	0.1218	13388.1	50.00
DRB1_0301	607	RELQRQLGILSQVND	LQRQLGILS	0.1206	13555.0	50.00
DRB1_0301	12	RRKRARKWGDVTVQP	RARKWGD	0.1205	13578.4	50.00
DRB1_0301	589	QATIAAAQVAETERD	TIAAAQVAE	0.1195	13716.9	50.00
DRB1_0301	124	PGDGTAAVDIPVDD	TAAVDIPV	0.1171	14082.0	50.00
DRB1_0301	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.1166	14164.8	50.00
DRB1_0301	98	GDDEATVVITVVSYS	DDEATVVIT	0.1160	14258.3	50.00
DRB1_0301	399	PTAHWAEIGNDVENA	WAEIGNDVE	0.1139	14586.9	50.00
DRB1_0301	486	MRGSYGGVVMIGMLS	MRGSYGGVV	0.1119	14902.3	50.00
DRB1_0301	501	SVVGLGLFNPLSVGA	VGLGLFNPL	0.1117	14927.7	50.00
DRB1_0301	506	GLFNPLSVGAGLILG	LVNPLSVGA	0.1110	15037.6	50.00
DRB1_0301	207	QEFTEPEMWFVRQAH	EMWFVRQAH	0.1109	15068.0	50.00
DRB1_0301	111	YSAQPSARLVLAAGP	QPSARLVLA	0.1099	15222.9	50.00
DRB1_0301	500	SSVVGLGLFNPLSVG	VGLGLFNPL	0.1085	15456.6	50.00
DRB1_0301	489	SYGGVVMIGMLSSVV	GVVMIGMLS	0.1080	15540.7	50.00
DRB1_0301	177	VGGLGQPHLSATLG	VGGLGQPHL	0.1079	15556.7	50.00
DRB1_0301	300	ATERVRAGVLGEIRS	RAGVLGEIR	0.1073	15656.2	50.00
DRB1_0301	142	DVRRRAPHAGGREVLR	APHAGGREV	0.1066	15777.8	50.00
DRB1_0301	590	ATIAAAQVAETERDN	IAAAQVAET	0.1051	16039.4	50.00
DRB1_0301	27	DDPRRVGVIVELIDH	RVGVIVELI	0.1038	16268.5	50.00
DRB1_0301	485	GMRGSYGGVVMIGML	MRGSYGGVV	0.1036	16307.3	50.00
DRB1_0301	10	DLRRKRARKWGDTVT	DLRRKRARK	0.1026	16480.6	50.00
DRB1_0301	252	QRARVPMPIIAVSSL	VPMPPIIAVS	0.1012	16734.0	50.00
DRB1_0301	274	LNDKELNEESNFPPI	KELNEESNF	0.1001	16936.5	50.00
DRB1_0301	280	NEESNFPPIVKFLSE	NEESNFPPI	0.1000	16939.1	50.00
DRB1_0301	176	PGVGLGQPHLSATL	VGGLGQPHL	0.0988	17159.5	50.00
DRB1_0301	354	VQQTALWQQVLGDGF	WQQVLGDGF	0.0978	17350.9	50.00
DRB1_0301	11	LRRKRARKWGDTVTQ	RARKWGD	0.0976	17383.8	50.00
DRB1_0301	410	VENAIATAVGDNFVW	IATAVGDNF	0.0970	17503.0	50.00
DRB1_0301	487	RGSYGGVVMIGMLSS	RGSYGGVVM	0.0949	17914.4	50.00
DRB1_0301	24	TQPDDPRRVGVIVEL	TQPDDPRRV	0.0939	18096.7	50.00
DRB1_0301	175	TPGVGLGQPHLSAT	VGGLGQPHL	0.0930	18279.0	50.00
DRB1_0301	123	AGPDGTAAVDIPVD	AGPDGTAA	0.0928	18313.8	50.00
DRB1_0301	279	LNEESNFPPIVKFLS	NEESNFPPI	0.0928	18314.6	50.00
DRB1_0301	488	GSYGGVVMIGMLSSV	GSYGGVVM	0.0923	18414.7	50.00
DRB1_0301	140	STDVRRAPHAGGREV	TDVRRAPHA	0.0908	18720.5	50.00
DRB1_0301	278	ELNEESNFPPIVKFL	NEESNFPPI	0.0870	19506.9	50.00
DRB1_0301	275	NDKELNEESNFPPIV	NDKELNEES	0.0870	19508.2	50.00
DRB1_0301	121	LAAGPDGTAAVDIP	LAAGPDGT	0.0863	19647.5	50.00
DRB1_0301	342	DLERRKREAQQAVQQ	DLERRKREA	0.0857	19777.4	50.00
DRB1_0301	299	RATERVRAGVLGEIR	RAGVLGEIR	0.0834	20273.8	50.00
DRB1_0301	141	TDVRRAPHAGGREVL	TDVRRAPHA	0.0832	20315.5	50.00
DRB1_0301	122	AAGPDGTAAVDIPV	AAGPDGT	0.0827	20423.9	50.00
DRB1_0301	171	AIFDTPGVGLGQPH	AIFDTPGVG	0.0827	20435.2	50.00
DRB1_0301	281	EESNFPPIVKFLSEQ	SNFPPIVKF	0.0824	20494.6	50.00
DRB1_0301	26	PDDPRRVGVIVELID	RRVGVIVEL	0.0811	20789.6	50.00
DRB1_0301	409	DVENAIATAVGDNFV	IATAVGDNF	0.0805	20924.5	50.00
DRB1_0301	277	KELNEESNFPPIVKF	KELNEESNF	0.0798	21085.2	50.00
DRB1_0301	408	NDVENAIATAVGDNF	NDVENAIAT	0.0798	21094.1	50.00
DRB1_0301	407	GNDVENAIATAVGDN	NDVENAIAT	0.0788	21304.0	50.00
DRB1_0301	276	DKELNEESNFPPIVK	DKELNEESN	0.0765	21848.4	50.00

DRB1_0301	398	DPTAHWAEIGNDVEN	WAEIGNDVE	0.0727	22780.2	50.00
DRB1_0301	174	DTPGVGGLGQPHLSA	VGGLGQPHL	0.0718	22997.9	50.00
DRB1_0301	348	REAQQAVQQTALWQQ	REAQQAVQQ	0.0695	23568.9	50.00
DRB1_0301	350	AQQAVQQTALWQQVL	QQAVQQTAL	0.0664	24362.6	50.00
DRB1_0301	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.0660	24483.3	50.00
DRB1_0301	173	IDTPGVGGLGQPHLS	VGGLGQPHL	0.0635	25166.1	50.00
DRB1_0301	349	EAQQAVQQTALWQQV	QQAVQQTAL	0.0616	25676.8	50.00
DRB1_0301	347	KREAQQAVQQTALWQ	REAQQAVQQ	0.0614	25717.4	50.00
DRB1_0301	396	SCDPTAHWAEIGNDV	DPTAHWAEI	0.0604	26003.7	50.00
DRB1_0301	395	DSCDPTAHWAEIGND	SCDPTAHWA	0.0587	26488.4	50.00
DRB1_0301	343	LERRKREAQQAVQQT	LERRKREAQ	0.0571	26946.6	50.00
DRB1_0301	397	CDPTAHWAEIGNDVE	DPTAHWAEI	0.0570	26998.5	50.00
DRB1_0301	172	FIDTPGVGGLGQPHL	IDTPGVGGL	0.0567	27075.5	50.00
DRB1_0301	353	AVQQTALWQQVLGDG	QQTALWQQV	0.0550	27563.2	50.00
DRB1_0301	346	RKREAQQAVQQTALW	REAQQAVQQ	0.0545	27725.0	50.00
DRB1_0301	345	RRKREAQQAVQQTAL	REAQQAVQQ	0.0515	28642.2	50.00
DRB1_0301	351	QQAVQQTALWQQVLG	QQAVQQTAL	0.0502	29031.6	50.00
DRB1_0301	352	QAVQQTALWQQVLGD	QQTALWQQV	0.0489	29459.7	50.00
DRB1_0301	344	ERRKREAQQAVQQTA	ERRKREAQQ	0.0425	31568.5	50.00

Allele: DRB1_0301. Number of high binders 8. Number of weak binders 120. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind	Level	%Random
DRB1_0401	529	QNRLLRVRSEAKANV	LLRVRSEAK	0.7516	14.7	SB		0.80
DRB1_0401	237	YPRWREIVNANAHL	PRWREIVNA	0.7467	15.5	SB		0.80
DRB1_0401	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.7452	15.8	SB		0.80
DRB1_0401	543	VRRFVDDISFVVSQK	RRFVDDISF	0.7314	18.3	SB		1.00
DRB1_0401	238	PRWREIVNANAHLQ	WREIVNANA	0.7306	18.5	SB		1.00
DRB1_0401	236	LYPRWREIVNANAHL	PRWREIVNA	0.7273	19.1	SB		1.00
DRB1_0401	542	NVRRFVDDISFVVSQ	RRFVDDISF	0.7263	19.3	SB		1.00
DRB1_0401	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.7258	19.4	SB		1.00
DRB1_0401	83	QLLNSLLNLPAAARV	QLLNSLLNL	0.7257	19.5	SB		1.00
DRB1_0401	531	RLLRVRSEAKANVRR	LLRVRSEAK	0.7247	19.7	SB		2.00
DRB1_0401	544	RRFVDDISFVVSQKS	RRFVDDISF	0.7118	22.6	SB		2.00
DRB1_0401	541	ANVRRFVDDISFVVS	RRFVDDISF	0.7101	23.0	SB		2.00
DRB1_0401	82	KSQLLNSLLNLPAAAR	QLLNSLLNL	0.6985	26.1	SB		2.00
DRB1_0401	235	DLYPRWREIVNANAHL	PRWREIVNA	0.6980	26.3	SB		2.00
DRB1_0401	84	QLLNSLLNLPAAARVG	QLLNSLLNL	0.6883	29.1	SB		2.00
DRB1_0401	527	DKQNRLLRVRSEAKA	LLRVRSEAK	0.6813	31.4	SB		4.00
DRB1_0401	239	RWREIVNANAHLQR	WREIVNANA	0.6707	35.3	SB		4.00
DRB1_0401	289	VKFLSEQVLSRATER	KFLSEQVLS	0.6648	37.6	SB		4.00
DRB1_0401	290	KFLSEQVLSRATERV	KFLSEQVLS	0.6634	38.2	SB		4.00
DRB1_0401	81	GKSQLLNSLLNLPAAAR	QLLNSLLNL	0.6612	39.1	SB		4.00
DRB1_0401	288	IVKFLSEQVLSRATER	KFLSEQVLS	0.6574	40.7	SB		4.00
DRB1_0401	540	KANVRRFVDDISFVVS	RRFVDDISF	0.6552	41.7	SB		4.00
DRB1_0401	108	VVSYSQAQPSARLVLA	VSYSQAQPSA	0.6447	46.7	SB		4.00
DRB1_0401	107	TVVSYSQAQPSARLVL	VSYSQAQPSA	0.6437	47.2	SB		4.00
DRB1_0401	287	AIVKFLSEQVLSRATER	KFLSEQVLS	0.6321	53.6	WB		4.00
DRB1_0401	379	LRTFRFRTVTEAERQ	RTRFRFRTVTE	0.6312	54.1	WB		8.00
DRB1_0401	234	TDLYPRWREIVNANAHL	PRWREIVNA	0.6298	54.9	WB		8.00
DRB1_0401	380	RTRFRFRTVTEAERQI	RTRFRFRTVTE	0.6241	58.4	WB		8.00
DRB1_0401	106	ITVVSYSQAQPSARLV	VSYSQAQPSA	0.6224	59.5	WB		8.00
DRB1_0401	286	PAIVKFLSEQVLSRATER	VKFLSEQVLS	0.6207	60.6	WB		8.00
DRB1_0401	378	DLRTRFRFRTVTEAER	RTRFRFRTVTE	0.6201	61.0	WB		8.00
DRB1_0401	85	LLNSLLNLPAAARVGD	LNSLLNLPAA	0.6173	62.8	WB		8.00
DRB1_0401	80	QKSQLLNSLLNLPAAAR	SQLLNSLLNL	0.6169	63.1	WB		8.00
DRB1_0401	477	RRGHKMIIGMRGSYG	HKMIIGMRG	0.6146	64.7	WB		8.00
DRB1_0401	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.6127	66.1	WB		8.00
DRB1_0401	86	LNSLLNLPAAARVGD	LNSLLNLPAA	0.6123	66.4	WB		8.00
DRB1_0401	421	NFVWAYQRSEALADD	WAYQRSEAL	0.6096	68.3	WB		8.00
DRB1_0401	105	VITVVSYSQAQPSARL	VSYSQAQPSA	0.5997	76.1	WB		8.00
DRB1_0401	420	DNFVWAYQRSEALADD	WAYQRSEAL	0.5986	76.9	WB		8.00
DRB1_0401	240	WREIVNANAHLQRA	WREIVNANA	0.5981	77.3	WB		8.00
DRB1_0401	152	REVLRVVEVVGAPSP	LRVEVVGAPS	0.5962	79.0	WB		8.00
DRB1_0401	377	HDLRTRFRFRTVTEAER	RTRFRFRTVTE	0.5955	79.6	WB		8.00
DRB1_0401	109	VVSYSQAQPSARLVLA	YSQAQPSARL	0.5932	81.6	WB		8.00

DRB1_0401	476	LRRGHKMIIGMRGSY	HKMIIGMRG	0.5921	82.5	WB	8.00
DRB1_0401	478	RGHKMIIGMRGSYGG	KMIIGMRGS	0.5873	87.0	WB	8.00
DRB1_0401	479	GHKMIIGMRGSYGGV	KMIIGMRGS	0.5792	94.9	WB	8.00
DRB1_0401	419	GDNFVWAYQRSEALA	WAYQRSEAL	0.5749	99.4	WB	8.00
DRB1_0401	151	GREVLRVEVGAPSP	LRVEVGAPS	0.5707	104.0	WB	8.00
DRB1_0401	264	SSLRSHAVTLNDKE	LLRSHAVTL	0.5702	104.6	WB	8.00
DRB1_0401	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.5692	105.8	WB	8.00
DRB1_0401	539	AKANVRRFVDDISFV	RRFVDDISF	0.5669	108.4	WB	16.00
DRB1_0401	322	SLGSELSVVNDPNLR	LGSELSVVN	0.5641	111.8	WB	16.00
DRB1_0401	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.5630	113.1	WB	16.00
DRB1_0401	323	LLSELSVVNDPNLRD	LSVVNDPNL	0.5615	114.9	WB	16.00
DRB1_0401	285	FPAIVKFLSEQVLSR	VKFLSEQVL	0.5543	124.3	WB	16.00
DRB1_0401	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.5530	126.0	WB	16.00
DRB1_0401	153	EVL RVEVGAPSPLLR	LRVEVGAPS	0.5497	130.6	WB	16.00
DRB1_0401	549	DISFVVSQSRDRLK	ISFVVSQSQS	0.5486	132.1	WB	16.00
DRB1_0401	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.5477	133.5	WB	16.00
DRB1_0401	263	VSSLRSHAVTLNDK	SLLRSHAVT	0.5465	135.2	WB	16.00
DRB1_0401	548	DDISFVVSQSRDRL	ISFVVSQSQS	0.5462	135.7	WB	16.00
DRB1_0401	480	HKMIIGMRGSYGGVV	KMIIGMRGS	0.5413	143.1	WB	16.00
DRB1_0401	545	RFVDDISFVVSQSR	RFVDDISFV	0.5394	146.0	WB	16.00
DRB1_0401	422	FVWAYQRSEALADDV	WAYQRSEAL	0.5392	146.4	WB	16.00
DRB1_0401	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.5370	149.9	WB	16.00
DRB1_0401	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.5368	150.2	WB	16.00
DRB1_0401	79	KSQLLNLSLLNLP	QLLNLSLLNL	0.5367	150.2	WB	16.00
DRB1_0401	150	GGREVL RVEVGAPSP	LRVEVGAPS	0.5359	151.7	WB	16.00
DRB1_0401	418	VGDNFVWAYQRSEAL	NFVWAYQRS	0.5357	152.0	WB	16.00
DRB1_0401	550	ISFVVSQSRDRLKM	ISFVVSQSQS	0.5354	152.5	WB	16.00
DRB1_0401	327	LSVVNDPNLRDRLAS	LSVVNDPNL	0.5338	155.2	WB	16.00
DRB1_0401	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.5321	157.9	WB	16.00
DRB1_0401	607	RELQRQLGILSQVND	LQRQLGILS	0.5319	158.3	WB	16.00
DRB1_0401	321	VSLQSELSVVNDPNL	LGSELSVVN	0.5303	161.2	WB	16.00
DRB1_0401	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.5298	162.1	WB	16.00
DRB1_0401	475	PLRRGHKMIIGMRGS	RRGHKMIIG	0.5275	166.1	WB	16.00
DRB1_0401	609	LQRQLGILSQVNDNL	LQRQLGILS	0.5271	166.8	WB	16.00
DRB1_0401	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.5268	167.4	WB	16.00
DRB1_0401	582	VSLTESLQATIAAAQ	RSLTESLQA	0.5246	171.4	WB	16.00
DRB1_0401	547	RDDISFVVSQSRDR	ISFVVSQSQS	0.5218	176.6	WB	16.00
DRB1_0401	492	GVMIGMLSSVVGLG	VVMIGMLSS	0.5204	179.2	WB	16.00
DRB1_0401	423	VWAYQRSEALADDVA	WAYQRSEAL	0.5202	179.7	WB	16.00
DRB1_0401	233	KTDLYPRWREIVNAN	PRWREIVNA	0.5190	182.0	WB	16.00
DRB1_0401	376	DHDLRTRFRFTVTEA	RTRFRFTVTE	0.5175	185.0	WB	16.00
DRB1_0401	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.5152	189.7	WB	16.00
DRB1_0401	491	GGVVMIGMLSSVVGL	VVMIGMLSS	0.5121	196.1	WB	16.00
DRB1_0401	154	VLRVEVGAPSPLLRG	LRVEVGAPS	0.5119	196.6	WB	16.00
DRB1_0401	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.5114	197.6	WB	16.00
DRB1_0401	581	TRSLTESLQATIAAA	RSLTESLQA	0.5108	199.0	WB	16.00
DRB1_0401	580	ITRSLTESLQATIAA	RSLTESLQA	0.5098	201.2	WB	16.00
DRB1_0401	490	YGGVVMIGMLSSVVG	GVMIGMLSS	0.5082	204.6	WB	16.00
DRB1_0401	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.5070	207.3	WB	16.00
DRB1_0401	155	LRVEVGAPSPLLRGG	LRVEVGAPS	0.5036	215.1	WB	16.00
DRB1_0401	606	IRELQRQLGILSQVN	RELQRQLGI	0.4983	227.7	WB	16.00
DRB1_0401	87	NSLLNLPAARVGDDE	LLNLPAARV	0.4981	228.2	WB	16.00
DRB1_0401	241	REIVNANAAHLQAR	REIVNANAA	0.4977	229.3	WB	16.00
DRB1_0401	262	AVSSLRSHAVTLND	SLLRSHAVT	0.4969	231.4	WB	16.00
DRB1_0401	424	WAYQRSEALADDVAR	WAYQRSEAL	0.4965	232.3	WB	16.00
DRB1_0401	546	FVDDISFVVSQSRD	ISFVVSQSQS	0.4945	237.3	WB	16.00
DRB1_0401	104	VITVVSYSQAQPSAR	VITVVSYSA	0.4930	241.2	WB	16.00
DRB1_0401	493	VVMIGMLSSVVGLGL	VVMIGMLSS	0.4920	243.8	WB	16.00
DRB1_0401	608	ELQRQLGILSQVNDN	LQRQLGILS	0.4908	247.1	WB	16.00
DRB1_0401	198	AVLVVSDTSQEFTEP	VLVVSDTSQ	0.4901	248.9	WB	16.00
DRB1_0401	213	EMWFVRQAHQICPVG	WFVRQAHQI	0.4896	250.4	WB	16.00
DRB1_0401	164	PYLRGGLAFIDTPGV	PVLRGGLAF	0.4891	251.7	WB	16.00
DRB1_0401	489	SLGGVVMIGMLSSVV	GVMIGMLSS	0.4883	253.7	WB	32.00
DRB1_0401	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.4879	255.0	WB	32.00
DRB1_0401	197	DAVLVVSDTSQEFTE	VLVVSDTSQ	0.4874	256.2	WB	32.00
DRB1_0401	579	EITRSLTESLQATIA	RSLTESLQA	0.4857	260.9	WB	32.00
DRB1_0401	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.4851	262.7	WB	32.00
DRB1_0401	499	LSSVVGLGLFNPLSV	VVGLGLFNP	0.4849	263.4	WB	32.00
DRB1_0401	212	PEMWFVRQAHQICPV	WFVRQAHQI	0.4838	266.6	WB	32.00
DRB1_0401	583	SLTESLQATIAAAQV	ESLQATIAA	0.4832	268.2	WB	32.00

DRB1_0401	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.4831	268.4	WB	32.00
DRB1_0401	317	EQLAVSLGSELSVVN	EQLAVSLGS	0.4830	268.7	WB	32.00
DRB1_0401	78	LKQKGSQLLNSLLNL	QLLNSLLNL	0.4817	272.5	WB	32.00
DRB1_0401	169	GLAFIDTPGVGGLGQ	LAFLIDTPGV	0.4792	280.1	WB	32.00
DRB1_0401	214	WVFVRQAHQICPVGA	WVFVRQAHQI	0.4788	281.3	WB	32.00
DRB1_0401	266	LLRSHAVTLNDKELN	RSHAVTLND	0.4727	300.3	WB	32.00
DRB1_0401	196	ADAVLVVSDTSQEFT	VLVVSDTSQ	0.4718	303.4	WB	32.00
DRB1_0401	585	TESLQATIAAAQVAE	ESLQATIAA	0.4703	308.5	WB	32.00
DRB1_0401	533	LRVRSEAKANVRRFV	LRVRSEAKA	0.4694	311.4	WB	32.00
DRB1_0401	605	RIRELQRQLGILSQV	LQRQLGILS	0.4686	313.9	WB	32.00
DRB1_0401	381	RFRTVTEDAERQID	RFRTVTEDA	0.4633	332.8	WB	32.00
DRB1_0401	291	FLSEQVLSRATERVR	FLSEQVLSR	0.4623	336.2	WB	32.00
DRB1_0401	584	LTESLQATIAAAQVA	ESLQATIAA	0.4580	352.1	WB	32.00
DRB1_0401	149	AGGREVLRVEVGAPS	LRVEVGAPS	0.4568	356.7	WB	32.00
DRB1_0401	487	RGSYGGVVMIGMLSS	RGSYGGVVM	0.4551	363.6	WB	32.00
DRB1_0401	316	TEQLAVSLGSELSV	EQLAVSLGS	0.4520	375.9	WB	32.00
DRB1_0401	261	IAVSSLLRSHAVTLN	SLLRSHAVT	0.4495	386.1	WB	32.00
DRB1_0401	250	HLQRRARVPMPPIAVS	LQRRARVPMP	0.4474	395.0	WB	32.00
DRB1_0401	14	KRARKWGDTVTQPDD	RKWGDTVTQ	0.4473	395.7	WB	32.00
DRB1_0401	611	RQLGILSQVNDNLAG	LGILSQVND	0.4470	396.6	WB	32.00
DRB1_0401	211	EPEMWVFVRQAHQICP	WVFVRQAHQI	0.4459	401.7	WB	32.00
DRB1_0401	249	AHLQRRARVPMPPIAV	LQRRARVPMP	0.4456	403.0	WB	32.00
DRB1_0401	488	GSYGGVVMIGMLSSV	GVVMIGMLS	0.4454	403.6	WB	32.00
DRB1_0401	320	AVSLGSELSVNDPN	LGSELSVNV	0.4451	405.2	WB	32.00
DRB1_0401	561	RLKMIQRLLRDHYRE	KMIQRLLRD	0.4449	406.0	WB	32.00
DRB1_0401	260	IIAVSSLLRSHAVTL	IIAVSSLLR	0.4447	406.6	WB	32.00
DRB1_0401	251	LQRRARVPMPPIAVSS	LQRRARVPMP	0.4447	406.9	WB	32.00
DRB1_0401	439	SFADAGLDSVLSAEL	DAGLDSVLS	0.4446	407.4	WB	32.00
DRB1_0401	559	RDRLKMIQRLLRDHY	LKMIQRLLR	0.4437	411.3	WB	32.00
DRB1_0401	494	RFMIGMLSSVVGGLGF	IGMLSSVVG	0.4423	417.6	WB	32.00
DRB1_0401	438	VSFADAGLDSVLSAE	SFADAGLDS	0.4414	421.5	WB	32.00
DRB1_0401	560	DRLKMIQRLLRDHYR	LKMIQRLLR	0.4414	421.6	WB	32.00
DRB1_0401	538	EAKANVRRFVDDISF	RRFVDDISF	0.4410	423.2	WB	32.00
DRB1_0401	110	SYSAQPSARLVLAAG	YSAQPSARL	0.4410	423.3	WB	32.00
DRB1_0401	284	NFPPIVVKFLSEQVLS	VKFLSEQVL	0.4391	432.1	WB	32.00
DRB1_0401	103	TVVITVVSYSQAQPSA	VITVVSYS	0.4390	432.4	WB	32.00
DRB1_0401	610	QRLAVGILSQVNDNLA	LGILSQVND	0.4388	433.6	WB	32.00
DRB1_0401	318	QLAVSLGSELSVND	QLAVSLGSE	0.4386	434.6	WB	32.00
DRB1_0401	604	NRIRELQRQLGILSQ	LQRQLGILS	0.4382	436.6	WB	32.00
DRB1_0401	248	AAHLQRRARVPMPPIA	LQRRARVPMP	0.4377	438.9	WB	32.00
DRB1_0401	578	EEITRSLTESLQATI	RSLTESLQA	0.4365	444.4	WB	32.00
DRB1_0401	15	RARKWGDTVTQPDDP	RKWGDTVTQ	0.4350	452.0	WB	32.00
DRB1_0401	267	LRSHAVTLNDKELNE	RSHAVTLND	0.4335	459.3	WB	32.00
DRB1_0401	474	KPLRRGHKMIIGMRG	RRGHKMIIG	0.4305	474.5	WB	32.00
DRB1_0401	481	KMIIGMRGSYGGVVM	KMIIGMRGS	0.4304	474.6	WB	32.00
DRB1_0401	586	ESLQATIAAAQVAET	ESLQATIAA	0.4302	475.8	WB	32.00
DRB1_0401	612	QLGILSQVNDNLAGL	LGILSQVND	0.4294	480.2	WB	32.00
DRB1_0401	195	EADAVLVVSDTSQEF	VLVVSDTSQ	0.4277	488.8	WB	32.00
DRB1_0401	562	LKMIQRLLRDHYREI	KMIQRLLRD	0.4256	499.9	WB	32.00
DRB1_0401	259	PIIAVSSLLRSHAVT	IIAVSSLLR	0.4227	515.8	WB	32.00
DRB1_0401	16	ARKWGDTVTQPDDPR	RKWGDTVTQ	0.4222	518.8	WB	32.00
DRB1_0401	572	HYREIAEEITRSLTE	REIAEEITR	0.4212	524.3	WB	32.00
DRB1_0401	462	FGRLKALGRMESKPL	FGRLKALGR	0.4207	527.2	WB	32.00
DRB1_0401	613	LGILSQVNDNLAGLE	LGILSQVND	0.4206	528.0	WB	32.00
DRB1_0401	571	DHYREIAEEITRSLT	REIAEEITR	0.4193	535.2	WB	32.00
DRB1_0401	459	GTDFGRLKALGRMES	FGRLKALGR	0.4190	536.9	WB	32.00
DRB1_0401	461	DFGRLKALGRMESKP	FGRLKALGR	0.4179	543.9	WB	32.00
DRB1_0401	573	YREIAEEITRSLTES	REIAEEITR	0.4173	547.1	WB	32.00
DRB1_0401	13	RKRARKWGDTVTQPD	RKWGDTVTQ	0.4169	549.3	WB	32.00
DRB1_0401	184	PHLSATLGLLPEADA	PHLSATLGL	0.4153	559.2	WB	32.00
DRB1_0401	460	TDFGRLKALGRMESK	FGRLKALGR	0.4142	565.7	WB	32.00
DRB1_0401	319	LAVSLGSELSVNDP	VSLGSELSV	0.4140	567.1	WB	32.00
DRB1_0401	570	RDHYREIAEEITRSL	HYREIAEEI	0.4137	569.0	WB	32.00
DRB1_0401	437	ARSFADAGLDSVLSA	SFADAGLDS	0.4133	571.4	WB	32.00
DRB1_0401	199	VLVVSDTSQEFTEPE	VLVVSDTSQ	0.4126	575.8	WB	32.00
DRB1_0401	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.4119	580.3	WB	32.00
DRB1_0401	315	ATEQLAVSLGSELSV	EQLAVSLGS	0.4100	592.2	WB	32.00
DRB1_0401	215	WVFVRQAHQICPVGAV	WVFVRQAHQI	0.4087	600.6	WB	32.00
DRB1_0401	465	LKALGRMESKPLRRG	LKALGRMES	0.4061	617.7	WB	32.00
DRB1_0401	446	DSVLSAELSPHVMGT	SVLSAELSP	0.4048	626.1	WB	32.00

DRB1_0401	456	HVMGTDFGRLKALGR	FGRLKALGR	0.4029	639.2	32.00
DRB1_0401	558	SRDRLKMIQRLLRDH	LKMIQRLLR	0.3981	673.2	32.00
DRB1_0401	102	ATVVITVVSYSQAQPS	VITVVSYSQA	0.3964	686.3	32.00
DRB1_0401	464	RLKALGRMESKPLRR	KALGRMESK	0.3956	692.1	32.00
DRB1_0401	436	VARSFADAGLDSVLS	SFADAGLDS	0.3950	696.3	32.00
DRB1_0401	458	MGTDFGRLKALGRME	FGRLKALGR	0.3919	720.4	32.00
DRB1_0401	457	VMGTDFGRLKALGRM	FGRLKALGR	0.3917	721.6	32.00
DRB1_0401	621	DNLAGLEPTLTPRAS	LAGLEPTLT	0.3915	723.1	32.00
DRB1_0401	574	REIAEEITRSLTESL	REIAEEITR	0.3915	723.2	32.00
DRB1_0401	232	TKTDLYPRWREIVNA	PRWREIVNA	0.3910	727.4	32.00
DRB1_0401	210	TEPEMLWFVRQAHQIC	MWFVRQAHQ	0.3900	734.9	32.00
DRB1_0401	163	SPLLRGGLAFIDTPG	PLLRGGLAF	0.3882	749.4	32.00
DRB1_0401	53	DLVQRLTRARQRITD	DLVQRLTRA	0.3869	760.6	50.00
DRB1_0401	577	AEEITRSLTESLQAT	RSLTESLQA	0.3864	764.0	50.00
DRB1_0401	314	SATEQLAVSLGSELS	EQLAVSLGS	0.3849	776.9	50.00
DRB1_0401	268	RSHAVTLNDKELNEE	RSHAVTLND	0.3830	792.6	50.00
DRB1_0401	498	MIGSSVVGLGLFNPLS	VVGLGLFNP	0.3826	796.7	50.00
DRB1_0401	495	MLSSVVVGLGLFN	IGMLSSVVG	0.3823	799.4	50.00
DRB1_0401	622	NLAGLEPTLTPRASL	LAGLEPTLT	0.3821	800.8	50.00
DRB1_0401	445	LDSVLSAELSPHVMG	SVLSAELSP	0.3810	810.6	50.00
DRB1_0401	247	NAAHLQRARVPMPII	LQRARVPM	0.3785	832.4	50.00
DRB1_0401	12	RRKRARKWGDTVTPQ	RKWGDTVTPQ	0.3777	840.2	50.00
DRB1_0401	258	MPIIAVSSLLRSHAV	IIAVSSLLR	0.3776	840.9	50.00
DRB1_0401	463	GRKALGRMESKPLR	KALGRMESK	0.3775	841.7	50.00
DRB1_0401	170	LAFIDTPGVGGLQGP	LAFIDTPGV	0.3767	848.6	50.00
DRB1_0401	623	LAGLEPTLTPRASLG	LAGLEPTLT	0.3739	874.9	50.00
DRB1_0401	400	TAHWAEIGNDVENAI	TAHWAEIGN	0.3738	875.6	50.00
DRB1_0401	313	RSATEQLAVSLGSEL	EQLAVSLGS	0.3735	879.1	50.00
DRB1_0401	17	RKWGDTVTPQDDPRR	RKWGDTVTPQ	0.3730	883.8	50.00
DRB1_0401	183	QPHLSATLGLLPEAD	PHLSATLGL	0.3728	885.7	50.00
DRB1_0401	52	QDLVQRLTRARQRIT	DLVQRLTRA	0.3727	886.1	50.00
DRB1_0401	569	LRDHYREIAEEITRS	HYREIAEEI	0.3705	907.9	50.00
DRB1_0401	496	IGMLSSVVGLGLFNP	IGMLSSVVG	0.3702	911.1	50.00
DRB1_0401	486	MRGSYGGVVMIGMLS	RGSYGGVVM	0.3698	914.6	50.00
DRB1_0401	417	AVGDNFVWAYQRSEA	NFVWAYQRS	0.3697	916.1	50.00
DRB1_0401	36	NELIDHTIAIAKLNE	ELIDHTIAI	0.3695	917.9	50.00
DRB1_0401	620	VDNLAGLEPTLTPRA	LAGLEPTLT	0.3681	931.6	50.00
DRB1_0401	51	RGDLVQRLTRARQRI	DLVQRLTRA	0.3678	934.6	50.00
DRB1_0401	442	DAGLDSVLSAELSPH	DAGLDSVLS	0.3677	935.4	50.00
DRB1_0401	525	KEDKQNRLLRVRSEA	NRLLRVRSE	0.3672	940.4	50.00
DRB1_0401	603	DNRIRELQRQLGILS	RELQRQLGI	0.3662	950.6	50.00
DRB1_0401	37	ELIDHTIAIAKLNER	ELIDHTIAI	0.3655	958.3	50.00
DRB1_0401	399	PTAHWAEIGNDVENA	TAHWAEIGN	0.3654	958.8	50.00
DRB1_0401	34	VIVELIDHTIAIAKL	ELIDHTIAI	0.3627	988.2	50.00
DRB1_0401	557	QSRDRLKMIQRLLRD	RDRLKMIQR	0.3612	1003.8	50.00
DRB1_0401	466	KALGRMESKPLRRGH	RMESKPLRR	0.3608	1008.6	50.00
DRB1_0401	375	VDHDLRTRFRFTVTE	RTRFRFTVTE	0.3604	1012.2	50.00
DRB1_0401	11	LRRKRARKWGDTVTPQ	RKWGDTVTPQ	0.3598	1018.9	50.00
DRB1_0401	194	PEADAVLVVSDTSQE	VLVVSDTSQ	0.3597	1020.2	50.00
DRB1_0401	516	GLILGRMAYKEDKQN	GLILGRMAY	0.3596	1022.0	50.00
DRB1_0401	257	PMPPIIAVSSLLRSHA	IIAVSSLLR	0.3585	1034.0	50.00
DRB1_0401	33	GVIVELIDHTIAIAK	ELIDHTIAI	0.3560	1061.9	50.00
DRB1_0401	312	IRSATEQLAVSLGSE	RSATEQLAV	0.3560	1062.5	50.00
DRB1_0401	77	LLKQKKSQLLNSLLN	SQLLNSLLN	0.3546	1078.8	50.00
DRB1_0401	252	QRARVPMPIIAVSSL	RVPMPIIAV	0.3543	1081.6	50.00
DRB1_0401	88	LLNLPAARVGDDEA	LLNLPAARV	0.3531	1096.3	50.00
DRB1_0401	54	LVQRLTRARQRITDP	LVQRLTRAR	0.3530	1097.4	50.00
DRB1_0401	182	GQPHLSATLGLLPEA	PHLSATLGL	0.3518	1110.9	50.00
DRB1_0401	35	IVELIDHTIAIAKLN	ELIDHTIAI	0.3502	1131.4	50.00
DRB1_0401	455	PHVMGTDFGRLKALG	HVMGTDFGR	0.3492	1143.1	50.00
DRB1_0401	447	SVLSAELSPHVMGTD	SVLSAELSP	0.3489	1146.3	50.00
DRB1_0401	444	GLSDVLSAELSPHVM	SVLSAELSP	0.3472	1167.6	50.00
DRB1_0401	185	HLSATLGLLPEADAV	LSATLGLLP	0.3458	1186.5	50.00
DRB1_0401	563	KMIQRLLRDHYREIA	KMIQRLLRD	0.3441	1208.3	50.00
DRB1_0401	148	HAGGREVLRVEVGAP	EVLRVEVGA	0.3438	1211.5	50.00
DRB1_0401	398	DPTAHWAEIGNDVEN	TAHWAEIGN	0.3399	1264.5	50.00
DRB1_0401	283	SNFPAIVKFLSEQVL	VKFLSEQVL	0.3395	1269.9	50.00
DRB1_0401	328	SVVNDPNLRDRLASD	VVNDPNLRD	0.3381	1289.0	50.00
DRB1_0401	515	AGLILGRMAYKEDKQ	GLILGRMAY	0.3377	1295.1	50.00
DRB1_0401	307	GVLGEIRSATEQLAV	VLGEIRSAT	0.3374	1298.4	50.00

DRB1_0401	50	ERGLDLVQRLTRARQR	DLVQRLTRA	0.3373	1300.3	50.00
DRB1_0401	497	GMLSSVVVGLGLFNPL	GMLSSVVVGL	0.3372	1302.0	50.00
DRB1_0401	441	ADAGLDSVLSAELSP	DAGLDSVLS	0.3356	1324.9	50.00
DRB1_0401	101	EATLVVITVVSYSAPQ	VITVVSYSAP	0.3344	1341.7	50.00
DRB1_0401	55	QRLTRARQRITDPQ	RLTRARQRI	0.3339	1349.5	50.00
DRB1_0401	473	SKPLRRGHKMIIGMR	RRGHKMIIG	0.3335	1354.7	50.00
DRB1_0401	454	SPHVMGTDFGRLKAL	PHVMGTDFG	0.3313	1387.4	50.00
DRB1_0401	426	YQRSEALADDVARSF	YQRSEALAD	0.3307	1396.6	50.00
DRB1_0401	425	AYQRSEALADDVARS	YQRSEALAD	0.3305	1398.8	50.00
DRB1_0401	521	RMAYKEDKQNRLLRV	RMAYKEDKQ	0.3304	1400.7	50.00
DRB1_0401	111	YSAQPSARLVLAAGP	YSAQPSARL	0.3302	1403.3	50.00
DRB1_0401	162	PSPLLRGGLAFIDTP	PLLRGGLAF	0.3295	1414.6	50.00
DRB1_0401	440	FADAGLDSVLSAELS	DAGLDSVLS	0.3294	1416.5	50.00
DRB1_0401	556	KQSRDLRKMIIQRLLR	RDRLKMIQR	0.3272	1449.7	50.00
DRB1_0401	5	LCAYRDLRRKRARKW	LCAYRDLRR	0.3260	1469.7	50.00
DRB1_0401	277	KELNEESNFPAIVKF	LNEESNFPA	0.3254	1478.9	50.00
DRB1_0401	253	RARVPMPIIAVSSLL	RVPMPIIAV	0.3244	1495.0	50.00
DRB1_0401	485	GMRSYGGVVMIGML	RGSYGGVVM	0.3242	1498.0	50.00
DRB1_0401	517	LILGRMAYKEDKQNR	RMAYKEDKQ	0.3234	1510.8	50.00
DRB1_0401	2	PAGLCAYRDLRRKRA	LCAYRDLRR	0.3234	1511.9	50.00
DRB1_0401	308	VLGEIRSATEQLAVS	VLGEIRSAT	0.3216	1540.3	50.00
DRB1_0401	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.3213	1545.9	50.00
DRB1_0401	551	SFVVSKQSRDRDLKMI	SFVVSQSR	0.3198	1570.4	50.00
DRB1_0401	32	VIVIVELIDHTIAIA	VIVELIDHT	0.3196	1575.5	50.00
DRB1_0401	520	GRMAYKEDKQNRLLR	RMAYKEDKQ	0.3195	1575.8	50.00
DRB1_0401	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.3181	1600.7	50.00
DRB1_0401	305	RAGVLGEIRSATEQL	GVLGEIRSA	0.3181	1601.0	50.00
DRB1_0401	4	GLCAYRDLRRKRARK	LCAYRDLRR	0.3179	1604.2	50.00
DRB1_0401	255	RVPMPPIIAVSSLLRS	RVPMPPIAV	0.3168	1622.3	50.00
DRB1_0401	246	ANAAHLQARARVPMPI	LQARARVPM	0.3168	1622.9	50.00
DRB1_0401	181	LGQPHLSATLGLLPE	PHLSATLGL	0.3164	1629.6	50.00
DRB1_0401	68	PQVRVVIAGLLKQGK	RVVIAGLLK	0.3142	1668.7	50.00
DRB1_0401	311	EIRSATEQLAVSLGS	RSATEQLAV	0.3140	1672.6	50.00
DRB1_0401	568	LLRDHYREIAEETR	RDHYREIAE	0.3135	1682.9	50.00
DRB1_0401	416	TAVGDNFVWAYQRSE	NFVWAYQRS	0.3131	1690.1	50.00
DRB1_0401	180	GLGQPHLSATLGLLP	GLGQPHLSA	0.3129	1692.3	50.00
DRB1_0401	186	LSATLGLLPEADAVL	LSATLGLLP	0.3126	1699.4	50.00
DRB1_0401	62	RQRITDPQVRVVIAG	RITDPQVRV	0.3118	1714.1	50.00
DRB1_0401	1	VPAGLCAYRDLRRKR	PAGLCAYRD	0.3114	1720.4	50.00
DRB1_0401	276	DKELNEESNFPAIVK	LNEESNFPA	0.3108	1731.1	50.00
DRB1_0401	115	PSARLVLAAGPDGTT	RLVLAAGPD	0.3108	1732.8	50.00
DRB1_0401	443	AGLDSVLSAELSPHV	DSVLSAELS	0.3105	1737.7	50.00
DRB1_0401	282	ESNFPAIVKFLSEQV	ESNFPAIVK	0.3085	1776.1	50.00
DRB1_0401	506	GLFNPLSVGAGLILG	LFNPLSVGA	0.3066	1812.1	50.00
DRB1_0401	177	GVGGLGQPHLSATLG	GLGQPHLSA	0.3061	1822.1	50.00
DRB1_0401	435	DVARSFADAGLDSVL	SFADAGLDS	0.3052	1840.9	50.00
DRB1_0401	576	IAEEITRSLTESLQA	ITRSLTESL	0.3050	1843.8	50.00
DRB1_0401	467	ALGRMESKPLRRGHK	RMESKPLRR	0.3047	1851.0	50.00
DRB1_0401	254	RARVPMPIIAVSSLLR	RVPMPPIAV	0.3041	1862.7	50.00
DRB1_0401	468	LRVMESKPLRRGHKM	RMESKPLRR	0.3038	1867.5	50.00
DRB1_0401	30	RRVGVIVELIDHTIA	RRVGVIVEL	0.3033	1877.7	50.00
DRB1_0401	57	RLTRARQRITDPQVR	LTRARQRIT	0.3033	1878.1	50.00
DRB1_0401	484	IGMRGSYGGVVMIGM	RGSYGGVVM	0.3033	1879.3	50.00
DRB1_0401	256	VPMPPIIAVSSLLRSH	IIAVSSLLR	0.3027	1890.5	50.00
DRB1_0401	453	LSPHVMGTDFGRLKA	HVMGTDFGR	0.3023	1899.6	50.00
DRB1_0401	178	VGGLGQPHLSATLGL	GLGQPHLSA	0.3020	1904.3	50.00
DRB1_0401	193	LPEADAVLVVSDTSQ	VLVVSDTSQ	0.3010	1926.0	50.00
DRB1_0401	31	RVGVIVELIDHTIAI	VIVELIDHT	0.3008	1929.0	50.00
DRB1_0401	3	AGLCAYRDLRRKRAR	LCAYRDLRR	0.2986	1975.4	50.00
DRB1_0401	429	SEALADDVARSFADA	EALADDVAR	0.2986	1976.7	50.00
DRB1_0401	309	LGEIRSATEQLAVSL	RSATEQLAV	0.2979	1991.3	50.00
DRB1_0401	518	ILGRMAYKEDKQNR	RMAYKEDKQ	0.2976	1996.8	50.00
DRB1_0401	61	AQRITDPQVRVVIAG	RITDPQVRV	0.2970	2011.1	50.00
DRB1_0401	482	MIIGMRGSYGGVVM	MIIGMRGSY	0.2961	2031.6	50.00
DRB1_0401	519	LGRMAYKEDKQNRLL	RMAYKEDKQ	0.2959	2035.2	50.00
DRB1_0401	304	VRAVLGEIRSATEQ	GVLGEIRSA	0.2958	2036.6	50.00
DRB1_0401	56	QRLTRARQRITDPQV	RLTRARQRI	0.2958	2036.7	50.00
DRB1_0401	397	CDPTAHWAEIGNDVE	TAHWAEIGN	0.2956	2041.9	50.00
DRB1_0401	176	PGVGGGLGQPHLSATL	GLGQPHLSA	0.2952	2050.1	50.00
DRB1_0401	619	VNDNLAGLEPTLTPR	LAGLEPTLT	0.2926	2108.2	50.00

DRB1_0401	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.2922	2117.7	50.00
DRB1_0401	161	APSPLLRGGLAFIDT	PLLRGGLAF	0.2918	2127.5	50.00
DRB1_0401	0	MVPAGLCAYRDLRRK	PAGLCAYRD	0.2913	2138.9	50.00
DRB1_0401	63	QRITDPQVRVVIAGL	RITDPQVRV	0.2899	2170.4	50.00
DRB1_0401	179	GRLGQPHLSATLGLL	GLGQPHLSA	0.2898	2174.1	50.00
DRB1_0401	428	RSEALADDVARSFAD	EALADDVAR	0.2895	2179.8	50.00
DRB1_0401	117	ARLVLAAGPDGTTAA	RLVLAAGPD	0.2894	2182.4	50.00
DRB1_0401	374	DVDHDLRTRFRVTVE	RTRFRVTVE	0.2886	2202.6	50.00
DRB1_0401	278	ELNEESNFPAIVKFL	LNEESNFPA	0.2879	2219.2	50.00
DRB1_0401	430	EALADDVARSFADAG	EALADDVAR	0.2876	2225.0	50.00
DRB1_0401	70	RVVVIAGLLKQKKSQ	RVVIAGLLK	0.2864	2254.5	50.00
DRB1_0401	114	QPSARLVLAAGPDGT	RLVLAAGPD	0.2859	2266.4	50.00
DRB1_0401	310	GEIRSATEQLAVSLG	RSATEQLAV	0.2854	2279.2	50.00
DRB1_0401	67	DPQVRVVIAGLLKQG	RVVIAGLLK	0.2828	2345.0	50.00
DRB1_0401	147	PHAGGREVLRVEVGA	EVL RVEVGA	0.2828	2345.3	50.00
DRB1_0401	69	QVRVVIAGLLKQKKS	RVVIAGLLK	0.2814	2380.8	50.00
DRB1_0401	49	NERGLDVQLRQLTRARQ	DLVQLRQLTRA	0.2814	2381.0	50.00
DRB1_0401	514	GAGLILGRMAYKEDK	LILGRMAYK	0.2805	2402.9	50.00
DRB1_0401	242	EIVNANAHLQRRARV	EIVNANA AH	0.2804	2406.6	50.00
DRB1_0401	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.2799	2419.2	50.00
DRB1_0401	362	QVLGDGFNDLTADV D	GDGFNDLTA	0.2798	2421.4	50.00
DRB1_0401	116	SARLVLAAGPDGTTA	RLVLAAGPD	0.2796	2426.6	50.00
DRB1_0401	71	RVVIAGLLKQKKSQ L	RVVIAGLLK	0.2787	2451.0	50.00
DRB1_0401	29	PRRVGVIVELIDHTI	RRVGVIVEL	0.2784	2460.4	50.00
DRB1_0401	39	IDHTIAIAKLNERGD	IAIAKLNER	0.2780	2469.8	50.00
DRB1_0401	100	DEATVVITVVSYS AQ	TVVITVVS Y	0.2779	2471.7	50.00
DRB1_0401	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.2763	2514.6	50.00
DRB1_0401	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.2763	2516.7	50.00
DRB1_0401	365	GDGFNDLTADV DHD L	GDGFNDLTA	0.2758	2530.4	50.00
DRB1_0401	614	GILSQVNDNLAGLEP	GILSQVNDN	0.2756	2535.6	50.00
DRB1_0401	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.2747	2560.6	50.00
DRB1_0401	38	LIDHTIAIAKLNERG	IAIAKLNER	0.2743	2570.3	50.00
DRB1_0401	279	LNEESNFPAIVKFLS	LNEESNFPA	0.2742	2572.9	50.00
DRB1_0401	76	GLLKQKKSQ LLSL L	KQKKSQ L L N	0.2737	2588.7	50.00
DRB1_0401	567	RLLRDHYREIAE EIT	RDHYREIAE	0.2733	2599.8	50.00
DRB1_0401	363	VLGDGFNDLTADV D H	GDGFNDLTA	0.2729	2611.1	50.00
DRB1_0401	452	ELSPHVMGTDFGR LK	PHVMGTDFG	0.2724	2625.2	50.00
DRB1_0401	364	LGDGFNDLTADV D H D	GDGFNDLTA	0.2719	2638.5	50.00
DRB1_0401	245	NANAHLQRRARVPMP	AHLQRRARVP	0.2704	2682.5	50.00
DRB1_0401	60	RARQRITDPQVRVVI	RITDPQVRV	0.2703	2684.8	50.00
DRB1_0401	427	QRSEALADDVAR SFA	EALADDVAR	0.2702	2687.0	50.00
DRB1_0401	303	RVRAGVLGEIR SATE	GVLGEIRSA	0.2701	2691.1	50.00
DRB1_0401	58	LTRARQRITDPQVRV	LTRARQRIT	0.2700	2692.8	50.00
DRB1_0401	175	TPGVGGLGQPHLSAT	VGGLGQPHL	0.2693	2712.9	50.00
DRB1_0401	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.2692	2715.9	50.00
DRB1_0401	10	DLRRKRARKWGD T V T	LRRKRARKW	0.2662	2805.8	50.00
DRB1_0401	507	LFNPLSVGAGLILGR	LFNPLSVGA	0.2661	2807.7	50.00
DRB1_0401	401	AHWAEIGNDVENAI A	WAEIGNDVE	0.2660	2812.2	50.00
DRB1_0401	208	EFTEPEMWFVRQAHQ	EFTEPEMWF	0.2652	2836.4	50.00
DRB1_0401	275	NELNEESNFPAIV	LNEESNFPA	0.2644	2861.3	50.00
DRB1_0401	469	GRMESKPLRRGHKMI	RMESKPLRR	0.2615	2951.3	50.00
DRB1_0401	28	DPRRVGVIVELIDHT	RRVGVIVEL	0.2607	2978.4	50.00
DRB1_0401	602	RDNRIRELQRQLGIL	RELQRQLGI	0.2605	2984.9	50.00
DRB1_0401	7	AYRDLRRKRARKWGD	YRDLRRKRA	0.2604	2987.5	50.00
DRB1_0401	187	SATLGLLPEADAVLV	LGLLPEADA	0.2603	2991.3	50.00
DRB1_0401	513	VGAGLILGRMAYKED	LILGRMAYK	0.2602	2995.6	50.00
DRB1_0401	302	ERVVRAGVLGEIR SAT	ERVVRAGVLG	0.2600	3001.6	50.00
DRB1_0401	226	VGAVVATKTDLYPRW	VVATKTDLY	0.2597	3010.0	50.00
DRB1_0401	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.2594	3021.7	50.00
DRB1_0401	333	PNLRDRLASDLERRK	DRLASDLER	0.2592	3027.8	50.00
DRB1_0401	227	GAVVATKTDLYPRWR	VVATKTDLY	0.2579	3069.3	50.00
DRB1_0401	6	CLYRDLRRKRARKWG	YRDLRRKRA	0.2579	3070.2	50.00
DRB1_0401	587	SQATIAAAQVAETE	QATIAAAQ	0.2574	3086.3	50.00
DRB1_0401	64	RITDPQVRVVIAGLL	RITDPQVRV	0.2573	3088.8	50.00
DRB1_0401	59	TRARQRITDPQVRVV	QRITDPQVR	0.2572	3091.9	50.00
DRB1_0401	565	IQRLLRDHYREIAEE	QRLLRDHYR	0.2570	3101.4	50.00
DRB1_0401	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.2551	3162.8	50.00
DRB1_0401	329	VVNDPNLRDRLASDL	VVNDPNLRD	0.2548	3174.7	50.00
DRB1_0401	472	ESKPLRRGHKMIIGM	RRGHKMIIG	0.2543	3190.2	50.00
DRB1_0401	40	DHTIAIAKLNERGDL	HTIAIAKLN	0.2542	3194.6	50.00

DRB1_0401	470	RMESKPLRRGHKMI I	RMESKPLRR	0.2536	3215.9	50.00
DRB1_0401	190	LGLLPEADAVLVVSD	LGLLPEADA	0.2536	3216.7	50.00
DRB1_0401	66	TDPQVRVVIAGLLKQ	RVVIAGLLK	0.2533	3227.0	50.00
DRB1_0401	434	DDVARSFADAGLDSV	SFADAGLDS	0.2529	3240.1	50.00
DRB1_0401	564	MIQRLLRDHYREIAE	QRLLRDHYR	0.2521	3267.9	50.00
DRB1_0401	555	SKQSRDRLKMIQRLL	RDRLKMIQR	0.2516	3286.6	50.00
DRB1_0401	281	EESNFPAIVKFLSEQ	ESNFPAIVK	0.2513	3295.9	50.00
DRB1_0401	189	TLGLLPEADAVLVVS	LGLLPEADA	0.2503	3333.4	50.00
DRB1_0401	48	LNERGDLVQRLTRAR	DLVQRLTRA	0.2499	3348.4	50.00
DRB1_0401	355	QQTALWQQVLDGDFN	TALWQQVLDG	0.2491	3374.9	50.00
DRB1_0401	41	HTIAIAKLNERNRDLV	HTIAIAKLN	0.2488	3388.2	50.00
DRB1_0401	217	VRQAHQICPVGAVVA	VRQAHQICP	0.2487	3390.4	50.00
DRB1_0401	334	NLRDRLASDLERRKR	DRLASDLER	0.2481	3413.2	50.00
DRB1_0401	618	QVNDNLAGLEPTLTP	LAGLEPTLT	0.2476	3431.9	50.00
DRB1_0401	566	QRLLRDHYREIAEEI	QRLLRDHYR	0.2459	3496.1	50.00
DRB1_0401	356	QTALWQQVLDGDFND	TALWQQVLDG	0.2458	3500.2	50.00
DRB1_0401	113	AQPSARLVLAAGPDG	RLVLAAGPD	0.2456	3506.7	50.00
DRB1_0401	357	TALWQQVLDGDFNDL	TALWQQVLDG	0.2455	3511.3	50.00
DRB1_0401	9	RDLRRKRARKWGDTV	LRRKRARKW	0.2451	3526.2	50.00
DRB1_0401	75	AGLLKQGKSQLLNSL	LKQGKSQLL	0.2432	3598.5	50.00
DRB1_0401	8	YRDLRRKRARKWGDT	YRDLRRKRA	0.2430	3605.2	50.00
DRB1_0401	345	RRKREAQQAVQQTAL	REAQQAVQQ	0.2426	3623.8	50.00
DRB1_0401	361	QQVLGDGFNDLTADV	GDGFNDLTA	0.2419	3648.1	50.00
DRB1_0401	269	SHAVTLNDKELNEES	HAVTLNDKE	0.2406	3700.5	50.00
DRB1_0401	510	PLSVGAGLILGRMAY	LSVGAGLIL	0.2396	3740.2	50.00
DRB1_0401	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.2392	3760.0	50.00
DRB1_0401	188	ATLGLLPEADAVLVV	LGLLPEADA	0.2386	3781.6	50.00
DRB1_0401	512	SVGAGLILGRMAYKE	LILGRMAYK	0.2383	3795.7	50.00
DRB1_0401	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.2377	3819.9	50.00
DRB1_0401	174	DTPGVGGGLQPHLSA	VGGGLQPHL	0.2375	3826.8	50.00
DRB1_0401	47	KLNERGDLVQRLTRA	KLNERGDLV	0.2371	3843.9	50.00
DRB1_0401	225	PVGAVVATKTDLYPR	VVATKTDLY	0.2369	3851.8	50.00
DRB1_0401	448	VLSAELSPHVMGTDF	LSAELSPHV	0.2365	3868.2	50.00
DRB1_0401	332	DPNLRDRLASDLERR	PNLRDRLAS	0.2353	3918.5	50.00
DRB1_0401	228	AVVATKTDLYPRWRE	VVATKTDLY	0.2353	3921.0	50.00
DRB1_0401	218	RQAHQICPVGAVVAT	AHQICPVG	0.2331	4015.0	50.00
DRB1_0401	624	AGLEPTLTPRASLGR	AGLEPTLTP	0.2322	4054.9	50.00
DRB1_0401	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.2317	4077.3	50.00
DRB1_0401	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.2307	4120.5	50.00
DRB1_0401	524	YKEDKQNRLLRVRSE	NRLLRVRSE	0.2307	4121.2	50.00
DRB1_0401	396	SCDPTAHWAEIGNDV	TAHWAEIGN	0.2303	4137.7	50.00
DRB1_0401	27	DDPRRVGVIVELIDH	RRVGVIVEL	0.2292	4189.0	50.00
DRB1_0401	274	LNDKELNEESNFPAI	KELNEESNF	0.2285	4219.2	50.00
DRB1_0401	366	DGFNDLTADVVDHDLR	DGFNDLTAD	0.2279	4246.8	50.00
DRB1_0401	273	TLNDKELNEESNFPA	TLNDKELNE	0.2278	4250.7	50.00
DRB1_0401	229	VVATKTDLYPRWREI	VVATKTDLY	0.2275	4264.5	50.00
DRB1_0401	601	ERDNRIRELQRQLGI	RELQRQLGI	0.2275	4265.5	50.00
DRB1_0401	156	RVEVGAPSPLLRGGL	RVEVGAPSP	0.2257	4349.4	50.00
DRB1_0401	354	VQQTALWQQVLDGDF	TALWQQVLDG	0.2243	4414.4	50.00
DRB1_0401	295	QVLSRATERVRAGVL	QVLSRATER	0.2232	4470.6	50.00
DRB1_0401	280	NEESNFPAIVKFLSE	ESNFPAIVK	0.2231	4474.8	50.00
DRB1_0401	451	AELSPHVMGTDFGRL	PHVMGTDFG	0.2213	4561.8	50.00
DRB1_0401	352	QAVQQTALWQQVLDG	TALWQQVLDG	0.2212	4566.4	50.00
DRB1_0401	615	ILSQVNDNLAGLEPT	ILSQVNDNL	0.2211	4569.8	50.00
DRB1_0401	575	EIAEEITRSLTESLQ	EETRSLTE	0.2209	4583.4	50.00
DRB1_0401	99	DDEATVVITVVSYS	TVVITVVS	0.2205	4602.0	50.00
DRB1_0401	301	TERVRAGVLGEIRSA	RVRAGVLGE	0.2203	4609.9	50.00
DRB1_0401	402	HWAEIGNDVENAIAT	WAEIGNDVE	0.2192	4664.7	50.00
DRB1_0401	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.2188	4688.5	50.00
DRB1_0401	336	RDRLASDLERRKREA	DRLASDLER	0.2182	4714.7	50.00
DRB1_0401	344	ERRKREAQQAVQQTA	RKREAQQAV	0.2179	4733.4	50.00
DRB1_0401	353	AVQQTALWQQVLDGD	TALWQQVLDG	0.2169	4785.2	50.00
DRB1_0401	360	WQVLDGDFNDLTADV	GDGFNDLTA	0.2159	4833.2	50.00
DRB1_0401	95	ARVGDDEATVVITVV	RVGDDEATV	0.2158	4841.2	50.00
DRB1_0401	74	IAGLLKQGKSQLLNS	LKQGKSQLL	0.2156	4854.0	50.00
DRB1_0401	294	EQVLSRATERVRAGV	QVLSRATER	0.2154	4862.9	50.00
DRB1_0401	207	QEFTPEMWFVVRQAH	EFTEPEMWF	0.2143	4918.4	50.00
DRB1_0401	335	LRDRLASDLERRKRE	DRLASDLER	0.2132	4981.2	50.00
DRB1_0401	65	ITDPQVRVVIAGLLK	RVVIAGLLK	0.2126	5009.2	50.00
DRB1_0401	625	GLEPTLTPRASLGRA	LEPTLTPRA	0.2104	5134.2	50.00

DRB1_0401	471	MESKPLRRGHKMIIG	RRGHKMIIG	0.2095	5180.1	50.00
DRB1_0401	146	APHAGGREVLRLVEVG	HAGGREVLR	0.2090	5209.0	50.00
DRB1_0401	96	RVGDDEATVVITVVS	RVGDDEATV	0.2090	5212.1	50.00
DRB1_0401	346	RKREAQQAVQQTALW	REAQQAVQQ	0.2086	5235.0	50.00
DRB1_0401	231	ATKTDLYPRWREIVN	YPRWREIVN	0.2070	5325.0	50.00
DRB1_0401	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.2069	5333.0	50.00
DRB1_0401	433	ADDVARSFADAGLDS	SFADAGLDS	0.2060	5380.1	50.00
DRB1_0401	112	SAQPSARLVLAAGPD	RLVLAAGPD	0.2057	5400.9	50.00
DRB1_0401	94	AARVGDDEATVVITV	RVGDDEATV	0.2038	5510.2	50.00
DRB1_0401	348	REAQQAVQQTALWQQ	REAQQAVQQ	0.2037	5520.1	50.00
DRB1_0401	383	FRTVTEAERQIDSC	RATVTEDAE	0.2026	5583.6	50.00
DRB1_0401	296	VLSRATERVRAGVLG	RATERVRAG	0.2024	5594.0	50.00
DRB1_0401	224	CPVGAVVATKTDLYP	GAVVATKTD	0.2023	5601.9	50.00
DRB1_0401	343	LERRKREAQQAVQQT	RRKREAQQA	0.2017	5641.6	50.00
DRB1_0401	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.2002	5730.8	50.00
DRB1_0401	337	DRLASDLERRKREAQ	RLASDLERR	0.2000	5742.8	50.00
DRB1_0401	93	PAARVGDDEATVVIT	RVGDDEATV	0.1991	5797.2	50.00
DRB1_0401	351	QQAVQQTALWQQVLG	TALWQQVLG	0.1991	5800.4	50.00
DRB1_0401	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.1982	5853.5	50.00
DRB1_0401	160	GAPSPLLRGGLAFID	PLLRGGLAF	0.1967	5953.7	50.00
DRB1_0401	331	NDPNLRDRLASDLER	NLRDRLASD	0.1962	5987.0	50.00
DRB1_0401	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.1960	5998.4	50.00
DRB1_0401	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.1949	6068.0	50.00
DRB1_0401	523	AYKEDKQNRLLRVRS	YKEDKQNRL	0.1946	6087.5	50.00
DRB1_0401	133	DIPVDDISTDVRRAP	DIPVDDIST	0.1939	6135.0	50.00
DRB1_0401	395	DSCDPTAHWAEIGND	TAHWAEIGN	0.1936	6158.2	50.00
DRB1_0401	300	ATERVRAGVLGEIRS	RVRAGVLGE	0.1935	6161.1	50.00
DRB1_0401	394	IDSCDPTAHWAEIGN	DSCDPTAHW	0.1931	6191.8	50.00
DRB1_0401	292	LSEQVLSRATERVRA	QVLSRATER	0.1918	6278.3	50.00
DRB1_0401	299	RATERVRAGVLGEIR	ERVVRAGVLG	0.1917	6285.4	50.00
DRB1_0401	367	FNDLTTADVDHDLRT	FNDLTADVD	0.1914	6303.7	50.00
DRB1_0401	347	KREAQQAVQQTALWQ	REAQQAVQQ	0.1912	6318.0	50.00
DRB1_0401	46	AKLNERGDLVQRLTR	KLNERGDLV	0.1911	6321.3	50.00
DRB1_0401	26	PDDPRRVGVIVELID	RRVGVIVEL	0.1910	6332.1	50.00
DRB1_0401	43	IAIAKLNERGDLVQR	IAIAKLNER	0.1906	6359.1	50.00
DRB1_0401	171	AFIDTPGVGGLGQPH	AFIDTPGVG	0.1896	6425.0	50.00
DRB1_0401	293	SEQVLSRATERVRAG	QVLSRATER	0.1894	6438.5	50.00
DRB1_0401	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.1890	6467.5	50.00
DRB1_0401	588	LQATIAAAQVAETER	LQATIAAAQ	0.1886	6499.6	50.00
DRB1_0401	554	VSKQSRDRLKMIQRL	RDRLKMIQR	0.1885	6505.6	50.00
DRB1_0401	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.1883	6519.0	50.00
DRB1_0401	220	AHQICPVGAVVATKT	AHQICPVGA	0.1877	6564.3	50.00
DRB1_0401	89	LLNLPAARVGDDEAT	LLNLPAARV	0.1870	6613.9	50.00
DRB1_0401	405	EIGNDVENAIATAVG	NDVENAIAT	0.1848	6766.8	50.00
DRB1_0401	132	VDIPVDDISTDVRRA	DIPVDDIST	0.1829	6913.8	50.00
DRB1_0401	206	SQEFTEPEMWFVRQA	EFTEPEMWF	0.1826	6935.3	50.00
DRB1_0401	219	QAHQICPVGAVVATK	AHQICPVGA	0.1824	6949.3	50.00
DRB1_0401	297	LSRATERVRAGVLGE	LSRATERVR	0.1822	6961.8	50.00
DRB1_0401	73	VIAGLLKQKGSQLLN	LKQKGSQLL	0.1812	7035.8	50.00
DRB1_0401	298	SRATERVRAGVLGEI	RATERVRAG	0.1804	7102.4	50.00
DRB1_0401	450	SAELSPHVMGTDFGR	PHVMGTDFG	0.1795	7167.9	50.00
DRB1_0401	535	VRSEAKANVRRFVDD	RSEAKANVR	0.1794	7178.2	50.00
DRB1_0401	45	IAKLNERGDLVQRLT	KLNERGDLV	0.1788	7223.4	50.00
DRB1_0401	72	VVIAGLLKQKGSQLL	VVIAGLLKQ	0.1786	7237.0	50.00
DRB1_0401	173	IDTPGVGGLGQPHLS	VGGLGQPHL	0.1778	7301.9	50.00
DRB1_0401	359	LWQQVLGDGFNDLTA	QVLGDGFND	0.1768	7382.0	50.00
DRB1_0401	159	VGAPSPLLRGGLAFI	PLLRGGLAF	0.1764	7413.2	50.00
DRB1_0401	243	IVNANAHLQRARVP	IVNANAHL	0.1760	7442.7	50.00
DRB1_0401	342	DLERRKREAQQAVQQ	RRKREAQQA	0.1748	7546.9	50.00
DRB1_0401	223	ICPVGAVVATKTDLY	VGAVVATKT	0.1743	7583.5	50.00
DRB1_0401	553	VVSKQSRDRLKMIQR	RDRLKMIQR	0.1734	7660.3	50.00
DRB1_0401	449	LSAELSPHVMGTDFG	LSAELSPHV	0.1730	7689.7	50.00
DRB1_0401	244	IVNANAHLQRARVPM	AHLQRARVP	0.1722	7758.2	50.00
DRB1_0401	406	IGNDVENAIATAVGD	NDVENAIAT	0.1719	7786.8	50.00
DRB1_0401	368	FNDLTADVDHDLRTR	FNDLTADVD	0.1713	7837.8	50.00
DRB1_0401	407	GNDVENAIATAVGDN	NDVENAIAT	0.1705	7904.9	50.00
DRB1_0401	131	AVDIPVDDISTDVR	DIPVDDIST	0.1700	7948.1	50.00
DRB1_0401	191	GLLPEADAVLVVSDT	LPEADAVLV	0.1683	8091.1	50.00
DRB1_0401	403	WAEIGNDVENAIATA	WAEIGNDVE	0.1680	8123.4	50.00
DRB1_0401	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.1678	8133.6	50.00

DRB1_0401	404	AEIGNDVENAIATAV	NDVENAIAT	0.1676	8157.6	50.00
DRB1_0401	44	AIAKLNREGDLVQRL	KLNERGDLV	0.1669	8219.1	50.00
DRB1_0401	350	AQQAVQQTALWQQVL	QQAQQQTAL	0.1637	8505.0	50.00
DRB1_0401	590	ATIAAAQVAETERDN	IAAAQVAET	0.1634	8535.4	50.00
DRB1_0401	272	VLNDKELNEESNFP	TLNDKELNE	0.1629	8578.4	50.00
DRB1_0401	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.1627	8596.2	50.00
DRB1_0401	221	HQICPVGAVVATKTD	HQICPVGAV	0.1624	8622.8	50.00
DRB1_0401	130	AAVDIPVDDISTDVR	DIPVDDIST	0.1620	8664.2	50.00
DRB1_0401	358	ALWQQVLGDGFNDLT	ALWQQVLGD	0.1617	8691.6	50.00
DRB1_0401	330	VNDPNLRDRLASDLE	NLRDRLASD	0.1607	8784.7	50.00
DRB1_0401	270	HATLNDKELNEESN	HAVTLNDKE	0.1600	8854.9	50.00
DRB1_0401	589	QATIAAAQVAETERD	IAAAQVAET	0.1599	8861.9	50.00
DRB1_0401	408	NDVENAIATAVGDNF	NDVENAIAT	0.1590	8945.8	50.00
DRB1_0401	537	SEAKANVRRFVDDIS	VRRFVDDIS	0.1577	9076.8	50.00
DRB1_0401	414	IATAVGDNFVWAYQR	AVGDNFVWA	0.1569	9158.0	50.00
DRB1_0401	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.1561	9236.9	50.00
DRB1_0401	98	GDDEATVVITVVSYS	TVVITVVSYS	0.1554	9302.2	50.00
DRB1_0401	373	ADVHDHLRTRFRFRTV	DHDLRTRFR	0.1542	9424.4	50.00
DRB1_0401	205	TSQEFTEPEMWFVRQ	EFTEPEMWF	0.1542	9429.7	50.00
DRB1_0401	349	EAQQAVQQTALWQQV	QQAQQQTAL	0.1536	9490.1	50.00
DRB1_0401	431	ALADDVARSFADAGL	ALADDVARS	0.1532	9532.4	50.00
DRB1_0401	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.1531	9541.8	50.00
DRB1_0401	92	LPAARVGDDEATVVI	RVGDDEATV	0.1515	9707.6	50.00
DRB1_0401	230	VATKTDLYPRWREIV	VATKTDLYP	0.1511	9743.9	50.00
DRB1_0401	552	FVVSQQRDRRLKMIQ	FVVSQQRSD	0.1503	9829.3	50.00
DRB1_0401	222	QICPVGAVVATKTDL	PVGAVVATK	0.1496	9909.7	50.00
DRB1_0401	393	QIDSCDPTAHWAEIG	QIDSCDPTA	0.1488	9993.8	50.00
DRB1_0401	158	EVGAPSPLLRGGLAF	PLLRGGLAF	0.1477	10113.7	50.00
DRB1_0401	412	NAIATAVGDNFVWAY	NAIATAVG	0.1447	10443.0	50.00
DRB1_0401	145	RAPHAGGREVLRVEV	HAGGREVLR	0.1447	10449.9	50.00
DRB1_0401	127	GTTAAVDIPVDDIST	TTAAVDIPV	0.1442	10509.9	50.00
DRB1_0401	591	TIAAAAQVAETERDNR	IAAAQVAET	0.1433	10606.5	50.00
DRB1_0401	432	LADDVARSFADAGLD	DVARSFADA	0.1415	10820.8	50.00
DRB1_0401	536	RSEAKANVRRFVDDI	RSEAKANVR	0.1412	10850.7	50.00
DRB1_0401	413	AIATAVGDNFVWAYQ	IATAVGDNF	0.1409	10888.4	50.00
DRB1_0401	600	TERDNRIRELQRQLG	RIRELQRQL	0.1406	10923.4	50.00
DRB1_0401	129	TAANDIPVDDISTDV	DIPVDDIST	0.1346	11652.6	50.00
DRB1_0401	120	VLAAGPDGTTAAVDI	LAAGPDGTT	0.1337	11772.5	50.00
DRB1_0401	18	KWGDTVTVQPDPRRV	KWGDTVTVQ	0.1324	11940.3	50.00
DRB1_0401	271	AVTLNDKELNEESNF	TLNDKELNE	0.1319	11998.7	50.00
DRB1_0401	338	RLASDLERRKREAQQ	RLASDLERR	0.1318	12016.0	50.00
DRB1_0401	386	VTEDAERQIDSCDPT	RQIDSCDPT	0.1313	12075.7	50.00
DRB1_0401	157	VEVGAPSPLLRGGLA	VEVGAPSPL	0.1308	12139.3	50.00
DRB1_0401	372	TADVHDHLRTRFRFRTV	DHDLRTRFR	0.1302	12226.6	50.00
DRB1_0401	411	ENAIATAVGDNFVWA	NAIATAVG	0.1298	12270.4	50.00
DRB1_0401	204	DTSQEFTEPEMWFVR	EFTEPEMWF	0.1298	12275.8	50.00
DRB1_0401	21	DTVTQPDDPRRVGVI	TVTQPDDPR	0.1269	12671.7	50.00
DRB1_0401	141	TDVRRAPHAGGREVL	TDVRRAPHA	0.1267	12690.8	50.00
DRB1_0401	139	ISTDVRRAPHAGGRE	TDVRRAPHA	0.1256	12850.4	50.00
DRB1_0401	140	STDVRRAPHAGGREV	TDVRRAPHA	0.1253	12886.7	50.00
DRB1_0401	19	WGDTVTVQPDPRRVG	TVTQPDDPR	0.1251	12914.6	50.00
DRB1_0401	20	GDTVTVQPDPRRVGV	DTVTQPDDP	0.1231	13204.1	50.00
DRB1_0401	370	DLTADVHDHLRTRFR	DLTADVHDH	0.1228	13248.5	50.00
DRB1_0401	138	DISTDVRRAPHAGGR	TDVRRAPHA	0.1227	13257.4	50.00
DRB1_0401	136	VDDISTDVRRAPHAG	TDVRRAPHA	0.1227	13259.0	50.00
DRB1_0401	97	VGDDEATVVITVVSYS	TVVITVVSYS	0.1226	13275.9	50.00
DRB1_0401	142	DVRRAPHAGGREVLR	DVRRAPHAG	0.1217	13395.5	50.00
DRB1_0401	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.1206	13555.5	50.00
DRB1_0401	341	SDLERRKREAQQAVQ	RRKREAQQA	0.1203	13605.1	50.00
DRB1_0401	137	DDISTDVRRAPHAGG	TDVRRAPHA	0.1201	13635.5	50.00
DRB1_0401	410	VENAIATAVGDNFVW	NAIATAVG	0.1190	13803.7	50.00
DRB1_0401	144	RPVPHAGGREVLRVE	HAGGREVLR	0.1186	13853.5	50.00
DRB1_0401	135	RADDISTDVRRAPHA	TDVRRAPHA	0.1183	13899.4	50.00
DRB1_0401	22	TVTQPDDPRRVGVIV	TVTQPDDPR	0.1149	14419.8	50.00
DRB1_0401	384	RTVTEDAERQIDSCD	RTVTEDAER	0.1134	14655.1	50.00
DRB1_0401	143	VRRAPHAGGREVLRV	HAGGREVLR	0.1123	14837.6	50.00
DRB1_0401	126	DGTTAAVDIPVDDIS	TTAAVDIPV	0.1117	14938.8	50.00
DRB1_0401	121	LAAGPDGTTAAVDIP	LAAGPDGTT	0.1101	15193.3	50.00
DRB1_0401	371	LTADVHDHLRTRFRFRT	LTADVHDHL	0.1099	15218.8	50.00
DRB1_0401	592	IAAAQVAETERDNR	IAAAQVAET	0.1099	15221.7	50.00

DRB1_0401	91	NLPAARVGDDEATVV	RVGDDEATV	0.1096	15268.7	50.00
DRB1_0401	203	SDTSQEFTEPEMWFV	QEFTEPEMW	0.1077	15594.5	50.00
DRB1_0401	409	DVENAIATAVGDNFV	NAIATAVGD	0.1077	15596.5	50.00
DRB1_0401	24	PQDDPPRRVGVIVEL	RRVGVIVEL	0.1076	15603.3	50.00
DRB1_0401	125	TDGTTAAVDIPVDDI	TTAAVDIPV	0.1076	15611.4	50.00
DRB1_0401	599	ETERDNRIRELQRQL	RIRELQRQL	0.1071	15693.2	50.00
DRB1_0401	369	NDLTADVVDHDLRTRF	DLTADVVDH	0.1049	16073.3	50.00
DRB1_0401	134	IPVDDISTDVRRAPH	IPVDDISTD	0.0962	17652.7	50.00
DRB1_0401	596	QVAETERDNRIRELQ	QVAETERDN	0.0954	17814.1	50.00
DRB1_0401	340	ASDLERRKREAQQAV	LERRKREAQ	0.0945	17994.4	50.00
DRB1_0401	598	AETERDNRIRELQRQ	ETERDNRIRE	0.0944	18009.0	50.00
DRB1_0401	90	LNLPAARVGDDEATV	RVGDDEATV	0.0937	18133.2	50.00
DRB1_0401	202	VSDTSQEFTEPEMWF	QEFTEPEMW	0.0926	18363.0	50.00
DRB1_0401	595	AQVAETERDNRIREL	QVAETERDN	0.0851	19900.4	50.00
DRB1_0401	124	GPDGTTAAVDIPVDD	TTAAVDIPV	0.0841	20125.4	50.00
DRB1_0401	339	LASDLERRKREAQQA	LERRKREAQ	0.0801	21028.3	50.00
DRB1_0401	597	VAETERDNRIRELQR	ETERDNRIR	0.0781	21472.7	50.00
DRB1_0401	594	AAQVAETERDNRIRE	QVAETERDN	0.0776	21603.2	50.00
DRB1_0401	123	AGPDGTTAAVDIPVD	TTAAVDIPV	0.0721	22929.0	50.00
DRB1_0401	122	AAGPDGTTAAVDIPV	TTAAVDIPV	0.0706	23300.2	50.00
DRB1_0401	593	AAAQVAETERDNRIR	QVAETERDN	0.0693	23612.8	50.00
DRB1_0401	385	TVTEDAERQIDSCDP	TVTEDAERQ	0.0683	23884.2	50.00
DRB1_0401	23	VTQPDDPPRRVGVIVE	PPRRVGVIVE	0.0585	26555.6	50.00

Allele: DRB1_0401. Number of high binders 24. Number of weak binders 138. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0404	81	GKSQLLNSLLNLPAA	QLNSLLNL	0.7950	9.2	SB	0.40
DRB1_0404	82	KSQLLNSLLNLPAA	QLNSLLNL	0.7945	9.2	SB	0.40
DRB1_0404	83	SQLLNSLLNLPAA	QLNSLLNL	0.7892	9.8	SB	0.40
DRB1_0404	493	VVMIGMLSSVVGLGL	VMIGMLSSV	0.7809	10.7	SB	0.80
DRB1_0404	80	QVKSQLLNSLLNLP	QLNSLLNL	0.7764	11.2	SB	0.80
DRB1_0404	492	GGVMIGMLSSVVGLG	VMIGMLSSV	0.7716	11.8	SB	0.80
DRB1_0404	84	QLNSLLNLPAA	QLNSLLNL	0.7713	11.9	SB	0.80
DRB1_0404	494	VMIGMLSSVVGLGLF	VMIGMLSSV	0.7690	12.2	SB	0.80
DRB1_0404	491	GGVVMIGMLSSVVGL	VMIGMLSSV	0.7580	13.7	SB	1.00
DRB1_0404	85	LLNSLLNLPAA	SLLNLPAA	0.7326	18.0	SB	2.00
DRB1_0404	79	KQKGSQLLNSLLNLP	QLNSLLNL	0.7312	18.3	SB	2.00
DRB1_0404	490	YGVVMIGMLSSVVG	VMIGMLSSV	0.7298	18.6	SB	2.00
DRB1_0404	103	TVVITVVSYSQAQPSA	TVVITVVSYS	0.6990	26.0	SB	4.00
DRB1_0404	86	LNSLLNLPAA	SLLNLPAA	0.6873	29.5	SB	4.00
DRB1_0404	102	ATVVITVVSYSQAQPS	TVVITVVSYS	0.6835	30.7	SB	4.00
DRB1_0404	480	HKMIIGMRGSYGGVV	MIIGMRGSY	0.6821	31.2	SB	4.00
DRB1_0404	479	GHKMIIGMRGSYGGV	MIIGMRGSY	0.6811	31.5	SB	4.00
DRB1_0404	257	PMPPIAVSSLLRSHA	PIIAVSSLL	0.6749	33.7	SB	4.00
DRB1_0404	501	VVGLGLFNPLSVGA	VGLGLFNPL	0.6734	34.3	SB	4.00
DRB1_0404	481	KMIIGMRGSYGGVVM	MIIGMRGSY	0.6695	35.7	SB	4.00
DRB1_0404	489	SYGGVVMIGMLSSVV	VMIGMLSSV	0.6675	36.5	SB	8.00
DRB1_0404	495	MIGMLSSVVGLGLFN	GMLSSVVGL	0.6666	36.9	SB	8.00
DRB1_0404	258	MPIIAVSSLLRSHAV	PIIAVSSLL	0.6662	37.0	SB	8.00
DRB1_0404	78	LKQKGSQLLNSLLNLP	QLNSLLNL	0.6638	38.0	SB	8.00
DRB1_0404	502	VVGLGLFNPLSVGAG	VGLGLFNPL	0.6622	38.7	SB	8.00
DRB1_0404	101	EATVVITVVSYSQAQ	TVVITVVSYS	0.6600	39.6	SB	8.00
DRB1_0404	500	SSVVGLGLFNPLSVG	VGLGLFNPL	0.6600	39.6	SB	8.00
DRB1_0404	256	VPMPPIAVSSLLRSH	PIIAVSSLL	0.6537	42.4	SB	8.00
DRB1_0404	478	RGHKMIIGMRGSYGG	MIIGMRGSY	0.6536	42.4	SB	8.00
DRB1_0404	503	VGLGLFNPLSVGAGL	VGLGLFNPL	0.6454	46.4	SB	8.00
DRB1_0404	104	VVITVVSYSQAQPSAR	TVVVSQAQPS	0.6448	46.7	SB	8.00
DRB1_0404	255	RVMPPIAVSSLLRS	PIIAVSSLL	0.6414	48.4	SB	8.00
DRB1_0404	87	NSLLNLPAA	SLLNLPAA	0.6283	55.8	WB	8.00
DRB1_0404	259	PIIAVSSLLRSHAVT	PIIAVSSLL	0.6204	60.8	WB	8.00
DRB1_0404	105	VITVVSYSQAQPSARL	TVVVSQAQPS	0.6203	60.9	WB	8.00
DRB1_0404	497	GMLSSVVGLGLFNPL	GMLSSVVGL	0.6179	62.4	WB	8.00
DRB1_0404	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.6167	63.2	WB	8.00
DRB1_0404	482	MIIGMRGSYGGVVM	MIIGMRGSY	0.6159	63.8	WB	8.00
DRB1_0404	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.6147	64.7	WB	8.00

DRB1_0404	499	LSSVVGLGLFNPLSV	VGLGLFNPL	0.6146	64.7	WB	8.00
DRB1_0404	100	DEATVVITVVSYSAQ	TVVITVVSYS	0.6142	65.0	WB	8.00
DRB1_0404	477	RRGHKMIIGMRGSYG	MIIGMRGSY	0.6112	67.1	WB	8.00
DRB1_0404	197	DAVLVVSDDTSQEFTE	AVLVVSDTS	0.6080	69.5	WB	16.00
DRB1_0404	254	ARVPMPIIAVSSLLR	RVPMPPIIAV	0.6067	70.5	WB	16.00
DRB1_0404	285	FPAIVKFLSEQVLSR	IVKFLSEQV	0.6048	71.9	WB	16.00
DRB1_0404	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.6035	73.0	WB	16.00
DRB1_0404	496	IGMLSSVVGLGLFNP	GMLSSVVGL	0.6006	75.3	WB	16.00
DRB1_0404	196	ADAVLVVSDTSQEFTE	AVLVVSDTS	0.5970	78.3	WB	16.00
DRB1_0404	166	LRGGLAFIDTPGVGG	GLAFIDTPG	0.5951	79.9	WB	16.00
DRB1_0404	287	AIVKFLSEQVLSRAT	VKFLSEQVL	0.5950	80.0	WB	16.00
DRB1_0404	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.5942	80.7	WB	16.00
DRB1_0404	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.5896	84.8	WB	16.00
DRB1_0404	106	ITVVSYSQAQPSARLV	TVVSYSQAP	0.5870	87.2	WB	16.00
DRB1_0404	498	MLSSVVGLGLFNPLS	VGLGLFNPL	0.5861	88.1	WB	16.00
DRB1_0404	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.5859	88.3	WB	16.00
DRB1_0404	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.5858	88.4	WB	16.00
DRB1_0404	620	NNDNLAGLEPTLTPRA	NLAGLEPTL	0.5806	93.5	WB	16.00
DRB1_0404	284	NFPAIVKFLSEQVLS	AIVKFLSEQ	0.5798	94.3	WB	16.00
DRB1_0404	621	DNLAGLEPTLTPRAS	NLAGLEPTL	0.5794	94.7	WB	16.00
DRB1_0404	253	RARVPMPIIAVSSLL	RVPMPPIIAV	0.5793	94.8	WB	16.00
DRB1_0404	611	RQLGILSQVNDNLAG	RQLGILSQV	0.5772	97.0	WB	16.00
DRB1_0404	488	GSYGGVVMIGMLSSV	VMIGMLSSV	0.5726	101.9	WB	16.00
DRB1_0404	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.5701	104.8	WB	16.00
DRB1_0404	77	LLKQKKSQLLNSLLN	GKSQLLNSL	0.5690	106.0	WB	16.00
DRB1_0404	260	IIAVSSLLRSHAVTL	LLRSHAVTL	0.5686	106.5	WB	16.00
DRB1_0404	261	IAVSSLLRSHAVTLN	LLRSHAVTL	0.5667	108.7	WB	16.00
DRB1_0404	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.5633	112.8	WB	16.00
DRB1_0404	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.5629	113.2	WB	16.00
DRB1_0404	610	ERQLGILSQVNDNLA	RQLGILSQV	0.5617	114.7	WB	16.00
DRB1_0404	608	ELQRQLGILSQVNDN	ELQRQLGIL	0.5617	114.7	WB	16.00
DRB1_0404	195	EADAVLVVSDTSQEF	AVLVVSDTS	0.5615	114.9	WB	16.00
DRB1_0404	619	VNDNLAGLEPTLTPR	NLAGLEPTL	0.5598	117.1	WB	16.00
DRB1_0404	88	SLLNLPAAARVGDEEA	SLLNLPAAAR	0.5567	121.1	WB	16.00
DRB1_0404	609	LQRQLGILSQVNDNL	RQLGILSQV	0.5537	125.1	WB	16.00
DRB1_0404	107	TVVSYSQAQPSARLV	TVVSYSQAP	0.5509	128.9	WB	16.00
DRB1_0404	622	NLAGLEPTLTPRASL	NLAGLEPTL	0.5502	129.8	WB	16.00
DRB1_0404	165	LLRGGLAFIDTPGVG	GGLAFIDTP	0.5478	133.3	WB	16.00
DRB1_0404	99	DDEATVVITVVSYS	TVVITVVSYS	0.5461	135.8	WB	16.00
DRB1_0404	558	SRDRLKMIQRLLRDH	RLKMIQRLL	0.5447	137.9	WB	16.00
DRB1_0404	612	QLGILSQVNDNLAGL	ILSQVNDNL	0.5433	140.0	WB	16.00
DRB1_0404	288	IVKFLSEQVLSRATE	IVKFLSEQV	0.5432	140.2	WB	16.00
DRB1_0404	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.5429	140.6	WB	16.00
DRB1_0404	607	RELQRQLGILSQVND	ELQRQLGIL	0.5409	143.7	WB	16.00
DRB1_0404	476	LRRGHKMIIGMRGSY	MIIGMRGSY	0.5355	152.4	WB	16.00
DRB1_0404	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.5336	155.5	WB	16.00
DRB1_0404	252	QRARVPMPIIAVSSL	RVPMPPIIAV	0.5333	155.9	WB	16.00
DRB1_0404	239	RWREIVNANAHLQR	RWREIVNAN	0.5322	157.9	WB	16.00
DRB1_0404	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.5306	160.6	WB	16.00
DRB1_0404	33	GVIVELIDHTIAIAK	VIVELIDHT	0.5302	161.2	WB	16.00
DRB1_0404	238	PRWREIVNANAHLQ	RWREIVNAN	0.5287	163.9	WB	16.00
DRB1_0404	237	YPRWREIVNANAHL	RWREIVNAN	0.5260	168.7	WB	16.00
DRB1_0404	283	SNFPAIVKFLSEQVL	AIVKFLSEQ	0.5231	174.1	WB	32.00
DRB1_0404	34	VIVELIDHTIAIAKL	VIVELIDHT	0.5225	175.3	WB	32.00
DRB1_0404	613	LGILSQVNDNLAGLE	ILSQVNDNL	0.5216	177.0	WB	32.00
DRB1_0404	236	LYPRWREIVNANAHL	RWREIVNAN	0.5130	194.3	WB	32.00
DRB1_0404	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.5124	195.6	WB	32.00
DRB1_0404	460	TDFGRLKALGRMESK	TDFGRLKAL	0.5118	196.8	WB	32.00
DRB1_0404	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.5104	199.8	WB	32.00
DRB1_0404	32	VGVIVELIDHTIAIA	VIVELIDHT	0.5079	205.4	WB	32.00
DRB1_0404	606	IRELQRQLGILSQVN	ELQRQLGIL	0.5071	207.2	WB	32.00
DRB1_0404	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.5026	217.4	WB	32.00
DRB1_0404	605	RRELQARQLGILSQV	LQRQLGILS	0.5017	219.5	WB	32.00
DRB1_0404	251	LQRARVPMPIIAVSS	RVPMPPIIAV	0.4979	228.7	WB	32.00
DRB1_0404	194	PEADAVLVVSDTSQE	AVLVVSDTS	0.4978	228.9	WB	32.00
DRB1_0404	164	PLLRGGLAFIDTPGV	GGLAFIDTP	0.4947	236.8	WB	32.00
DRB1_0404	618	QVNDNLAGLEPTLTP	NLAGLEPTL	0.4946	237.0	WB	32.00
DRB1_0404	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.4940	238.6	WB	32.00
DRB1_0404	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.4908	246.9	WB	32.00
DRB1_0404	31	RVGVIVELIDHTIAI	VIVELIDHT	0.4906	247.6	WB	32.00

DRB1_0404	68	PQVRVVIAGLLKQ GK	QVRVVIAGL	0.4886	252.9	WB	32.00
DRB1_0404	459	GTDFGRLKALGRMES	TDFGRLKAL	0.4868	258.0	WB	32.00
DRB1_0404	199	VLVVS DTSQEFTEPE	VLVVS DTSQ	0.4866	258.5	WB	32.00
DRB1_0404	463	GRLKALGRMESKPLR	RLKALGRME	0.4855	261.5	WB	32.00
DRB1_0404	614	GILSQVNDNLAGLEP	ILSQVNDNL	0.4842	265.4	WB	32.00
DRB1_0404	69	QVRVVIAGLLKQ GKS	QVRVVIAGL	0.4838	266.4	WB	32.00
DRB1_0404	580	ITRSLTESLQATIAA	ITRSLTESL	0.4838	266.5	WB	32.00
DRB1_0404	250	HLQRRARVPMPIIAVS	RVPMPPIAV	0.4835	267.4	WB	32.00
DRB1_0404	464	RLKALGRMESKPLRR	RLKALGRME	0.4771	286.4	WB	32.00
DRB1_0404	462	FGRLKALGRMESKPL	RLKALGRME	0.4750	293.2	WB	32.00
DRB1_0404	235	DLYPRWREIVNANAA	RWREIVNAN	0.4725	301.0	WB	32.00
DRB1_0404	542	NVRRFVDDISFV VSK	RRFVDDISF	0.4720	302.8	WB	32.00
DRB1_0404	604	NRIRELQRQLGILSQ	RIRELQRQL	0.4715	304.5	WB	32.00
DRB1_0404	322	SLGSELSVNDPNLR	LSVNDPNL	0.4710	305.9	WB	32.00
DRB1_0404	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.4710	306.0	WB	32.00
DRB1_0404	541	ANVRRFVDDISFVVS	RRFVDDISF	0.4700	309.4	WB	32.00
DRB1_0404	579	EITRSLTESLQATIA	ITRSLTESL	0.4699	309.6	WB	32.00
DRB1_0404	327	LSVNDPNLRDRLAS	LSVNDPNL	0.4683	315.2	WB	32.00
DRB1_0404	30	RRVGVIVELIDHTIA	VIVELIDHT	0.4678	316.7	WB	32.00
DRB1_0404	289	VKFLSEQVLSRATER	FLSEQVLSR	0.4615	339.2	WB	32.00
DRB1_0404	67	DPQVRVVIAGLLKQ G	QVRVVIAGL	0.4605	342.8	WB	32.00
DRB1_0404	152	REVLRVEVGAPSP LL	VLRVEVGAP	0.4576	353.7	WB	32.00
DRB1_0404	461	DFGRLKALGRMESKP	RLKALGRME	0.4543	366.5	WB	32.00
DRB1_0404	317	EQLAVSLGSELSVNN	LAVSLGSEL	0.4539	368.0	WB	32.00
DRB1_0404	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.4523	374.7	WB	32.00
DRB1_0404	116	SARLVLAAGPDGTTA	RLVLAAGPD	0.4520	375.8	WB	32.00
DRB1_0404	35	IVELIDHTIAIAKLN	ELIDHTIAI	0.4515	377.9	WB	32.00
DRB1_0404	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.4502	383.4	WB	32.00
DRB1_0404	249	AHLQRRARVPMPIIAV	RVPMPPIAV	0.4492	387.4	WB	32.00
DRB1_0404	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.4476	394.1	WB	32.00
DRB1_0404	219	QAHQICPVGAVVATK	ICPVGAVVA	0.4474	395.2	WB	32.00
DRB1_0404	221	HQICPVGAVVATKTD	QICPVGAVV	0.4461	400.7	WB	32.00
DRB1_0404	540	KANVRRFVDDISFVV	NVRRFVDDI	0.4458	402.0	WB	32.00
DRB1_0404	98	GDDEATVVITVVSYS	TVVITVVSYS	0.4436	411.4	WB	32.00
DRB1_0404	151	GREVLRVEVGAPSP L	VLRVEVGAP	0.4435	412.0	WB	32.00
DRB1_0404	578	EEITRSLTESLQATI	ITRSLTESL	0.4420	418.7	WB	32.00
DRB1_0404	220	AHQICPVGAVVATKT	QICPVGAVV	0.4416	420.8	WB	32.00
DRB1_0404	153	EVLRVEVGAPSP LLR	VLRVEVGAP	0.4405	425.5	WB	32.00
DRB1_0404	582	RSLTESLQATIAAAQ	LTESLQATI	0.4383	436.0	WB	32.00
DRB1_0404	603	DNRIRELQRQLGILS	RIRELQRQL	0.4382	436.5	WB	32.00
DRB1_0404	117	ARLVLAAGPDGTTAA	RLVLAAGPD	0.4378	438.1	WB	32.00
DRB1_0404	66	TDPQVRVVIAGLLKQ	QVRVVIAGL	0.4368	442.9	WB	32.00
DRB1_0404	115	PSARLVLAAGPDGTT	RLVLAAGPD	0.4355	449.5	WB	32.00
DRB1_0404	76	GLLKQVKSQLLSLL	LLKQKSQL	0.4342	455.7	WB	32.00
DRB1_0404	475	PLRRGHKMIIGMRGS	RGHKMIIGM	0.4334	459.7	WB	32.00
DRB1_0404	234	TDLYPRWREIVNANA	RWREIVNAN	0.4301	476.3	WB	32.00
DRB1_0404	218	RQAHQICPVGAVVAT	HQICPVGAV	0.4297	478.6	WB	32.00
DRB1_0404	29	PRRVGVIVELIDHTI	RRVGVIVEL	0.4296	479.1	WB	32.00
DRB1_0404	184	PHLSATLGLLPEADA	HLSATLGLL	0.4287	483.6	WB	32.00
DRB1_0404	581	TRSLTESLQATIAAA	LTESLQATI	0.4242	507.7	WB	32.00
DRB1_0404	185	HLSATLGLLPEADAV	HLSATLGLL	0.4239	509.3	WB	32.00
DRB1_0404	420	DNFVWAYQRSEALAD	FVWAYQRSE	0.4232	513.3	WB	32.00
DRB1_0404	617	SQVNDNLAGLEPTLT	NLAGLEPTL	0.4229	515.2	WB	32.00
DRB1_0404	556	KQSRDRLKMIQRLLR	RLKMIQRL	0.4224	517.5	WB	32.00
DRB1_0404	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.4219	520.7	WB	32.00
DRB1_0404	577	AEIITRSLTESLQAT	ITRSLTESL	0.4206	527.8	WB	32.00
DRB1_0404	529	QNRLLRVRSEAKANV	RLLRVRSEA	0.4203	529.6	WB	32.00
DRB1_0404	321	VSLGSELSVNDPNL	LSVNDPNL	0.4193	535.7	WB	32.00
DRB1_0404	36	VELIDHTIAIAKLNE	ELIDHTIAI	0.4174	546.4	WB	32.00
DRB1_0404	318	QLAVSLGSELSVND	LAVSLGSEL	0.4170	548.8	WB	32.00
DRB1_0404	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.4164	552.6	WB	32.00
DRB1_0404	530	NRLLRVRSEAKANVR	RLLRVRSEA	0.4161	554.2	WB	32.00
DRB1_0404	154	LLRVEVGAPSP LLRG	LLRVEVGAP	0.4143	565.4	WB	32.00
DRB1_0404	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.4142	566.0	WB	32.00
DRB1_0404	378	DLRTRFRFTVTEDAER	DLRTRFRFTV	0.4141	566.4	WB	32.00
DRB1_0404	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.4136	569.5	WB	32.00
DRB1_0404	458	MGTDFGRLKALGRME	TDFGRLKAL	0.4130	572.9	WB	32.00
DRB1_0404	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.4130	573.2	WB	32.00
DRB1_0404	282	ESNFPAIVKFLSEQV	PAIVKFLSE	0.4125	576.6	WB	32.00
DRB1_0404	305	RAGVLGEIRSATEQL	VLGEIRSAT	0.4108	586.7	WB	32.00

DRB1_0404	539	AKANVRRFVDDISFV	NVRRFVDDI	0.4088	599.9	32.00
DRB1_0404	583	SLTESLQATIAAAQV	LTESLQATI	0.4084	602.5	32.00
DRB1_0404	528	KQNRLLRVRSEAKAN	RLLRVRSEA	0.4079	605.5	32.00
DRB1_0404	421	NFVWAYQRSEALADD	FVWAYQRSE	0.4051	624.4	50.00
DRB1_0404	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.4046	627.6	50.00
DRB1_0404	217	VRQAHQICPVGAVVA	QAHQICPVG	0.4034	635.8	50.00
DRB1_0404	163	SPLLRGGLAFIDTPG	GGLAFIDTP	0.4031	637.7	50.00
DRB1_0404	150	GGREVLRVEVGAPSP	VLRVEVGAP	0.4017	647.7	50.00
DRB1_0404	307	GVLGEIRSATEQLAV	VLGEIRSAT	0.4017	648.0	50.00
DRB1_0404	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.4004	657.2	50.00
DRB1_0404	183	QPHLSATLGLLPEAD	HLSATLGLL	0.3996	662.8	50.00
DRB1_0404	543	VRRFVDDISFVVSQK	RRFVDDISF	0.3990	666.8	50.00
DRB1_0404	75	AGLLKQKGSQLLNSL	LLKQKGSQL	0.3977	676.5	50.00
DRB1_0404	446	DSVLSAELSPHVMGT	SVLSAELSP	0.3972	680.2	50.00
DRB1_0404	28	DPRRVGIVIVELIDHT	RRVGIVIVEL	0.3970	681.5	50.00
DRB1_0404	377	HDLRTRFRFTVTEDAE	DLRTRFRFTV	0.3926	714.5	50.00
DRB1_0404	182	QOPHLSATLGLLPEA	HLSATLGLL	0.3922	717.6	50.00
DRB1_0404	544	RRFVDDISFVVSQKS	RRFVDDISF	0.3922	718.0	50.00
DRB1_0404	213	EMWFVRQAHQICPVG	EMWFVRQAH	0.3904	731.7	50.00
DRB1_0404	548	DDISFVVSQSRDRL	SFVVSQSR	0.3901	734.0	50.00
DRB1_0404	584	LTESLQATIAAAQVA	SLQATIAAA	0.3900	735.0	50.00
DRB1_0404	114	QPSARLVLAAGPDGT	RLVLAAGPD	0.3885	747.5	50.00
DRB1_0404	222	QICPVGAVVATKTDL	QICPVGAVV	0.3869	760.3	50.00
DRB1_0404	615	ILSQVNDNLAGLEPT	ILSQVNDNL	0.3859	768.6	50.00
DRB1_0404	441	ADAGLDSVLSAELSP	GLDSVLSAE	0.3838	786.2	50.00
DRB1_0404	445	LDSVLSAELSPHVMG	SVLSAELSP	0.3837	787.2	50.00
DRB1_0404	442	DAGLDSVLSAELSPH	SVLSAELSP	0.3832	790.9	50.00
DRB1_0404	240	WREIVNANAHLQRA	EIVNANAHA	0.3817	804.1	50.00
DRB1_0404	465	LKALGRMESKPLRRG	LKALGRMES	0.3809	810.9	50.00
DRB1_0404	248	AAHLQARARVPMPIA	HLQARARVPM	0.3809	811.1	50.00
DRB1_0404	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.3803	816.5	50.00
DRB1_0404	487	RGSYGGVVMIGMLSS	VVMIGMLSS	0.3799	820.4	50.00
DRB1_0404	71	RVVIAGLLKQKGSQ	VVIAGLLKQ	0.3790	827.8	50.00
DRB1_0404	0	MVPAGLCAYRDLRRK	MVPAGLCAY	0.3783	834.6	50.00
DRB1_0404	418	VGDNFVWAYQRSEAL	FVWAYQRSE	0.3783	834.7	50.00
DRB1_0404	602	RQNRIRELQRQLGIL	RIRELQRQL	0.3775	842.0	50.00
DRB1_0404	355	QDTALWQQVVLGDGFN	TALWQQVVLG	0.3771	845.6	50.00
DRB1_0404	311	EIRSATEQLAVSLGS	EIRSATEQL	0.3764	851.7	50.00
DRB1_0404	314	SATEQLAVSLGSELS	LAVSLGSEL	0.3762	853.9	50.00
DRB1_0404	444	GLDSVLSAELSPHVM	SVLSAELSP	0.3750	864.4	50.00
DRB1_0404	212	PEMWFVRQAHQICPV	EMWFVRQAH	0.3747	867.1	50.00
DRB1_0404	70	VRVVIAGLLKQKGSQ	VVIAGLLKQ	0.3740	874.4	50.00
DRB1_0404	440	FADAGLDSVLSAELS	FADAGLDSV	0.3719	894.5	50.00
DRB1_0404	308	VLGEIRSATEQLAVS	EIRSATEQL	0.3715	898.3	50.00
DRB1_0404	290	KFLSEQVLSRATERV	FLSEQVLSR	0.3708	905.2	50.00
DRB1_0404	549	DISFVVSQSRDRLK	SFVVSQSR	0.3707	906.2	50.00
DRB1_0404	585	TESLQATIAAAQVAE	SLQATIAAA	0.3705	907.6	50.00
DRB1_0404	74	IAGLLKQKGSQLLNS	LLKQKGSQL	0.3691	921.4	50.00
DRB1_0404	447	SVLSAELSPHVMGTD	SVLSAELSP	0.3662	951.4	50.00
DRB1_0404	211	EPMSAEFVRQAHQICP	EMWFVRQAH	0.3653	960.5	50.00
DRB1_0404	37	ELIDHTIAIAKLNER	ELIDHTIAI	0.3648	965.7	50.00
DRB1_0404	550	ISFVVSQSRDRLK	SFVVSQSR	0.3646	968.0	50.00
DRB1_0404	547	VDDISFVVSQSRDR	SFVVSQSR	0.3642	972.3	50.00
DRB1_0404	563	KMIQRLLLRDHYREIA	MIQRLLRDH	0.3640	974.1	50.00
DRB1_0404	586	ESLQATIAAAQVAET	SLQATIAAA	0.3639	974.6	50.00
DRB1_0404	439	SFADAGLDSVLSAEL	FADAGLDSV	0.3634	979.9	50.00
DRB1_0404	155	LRVEVGAPSPLLRGG	RVEVGAPSP	0.3628	987.0	50.00
DRB1_0404	576	IAEEITRSLTESLQA	ITRSLTESL	0.3626	988.6	50.00
DRB1_0404	376	DHDLRTRFRFTVTEDA	DLRTRFRFTV	0.3622	992.9	50.00
DRB1_0404	531	RLLRVRSEAKANVRR	RLLRVRSEA	0.3618	997.5	50.00
DRB1_0404	455	PHVMGTDGRLKALG	PHVMGTDG	0.3617	998.8	50.00
DRB1_0404	354	IQDTALWQQVVLGDGF	TALWQQVVLG	0.3615	1000.5	50.00
DRB1_0404	65	VVTPQVRVVIAGLLK	QVRVVIAGL	0.3610	1006.0	50.00
DRB1_0404	215	WFVRQAHQICPVGAV	FVRQAHQIC	0.3605	1011.8	50.00
DRB1_0404	422	FVWAYQRSEALADDV	FVWAYQRSE	0.3604	1013.1	50.00
DRB1_0404	506	GLFNPLSVGAGLILG	GLFNPLSVG	0.3600	1017.5	50.00
DRB1_0404	304	VRAGVLGEIRSATEQ	GVLGEIRSA	0.3598	1019.0	50.00
DRB1_0404	1	VPAGLCAYRDLRRKR	GLCAYRDLR	0.3597	1020.9	50.00
DRB1_0404	72	VVIAGLLKQKGSQ	LLKQKGSQL	0.3596	1021.6	50.00
DRB1_0404	214	MWFVRQAHQICPVGA	FVRQAHQIC	0.3595	1022.0	50.00

DRB1_0404	443	AGLDSVLSAELSPHV	SVLSAELSP	0.3590	1028.1	50.00
DRB1_0404	527	DKQNRLLRVRSEAKA	RLLRVRSEA	0.3570	1050.8	50.00
DRB1_0404	241	REIVNANAHLQRAR	EIVNANAHAH	0.3569	1052.0	50.00
DRB1_0404	188	ATLGLLPEADAVLVV	LGLLPEADA	0.3561	1060.9	50.00
DRB1_0404	189	TLGLLPEADAVLVVS	LGLLPEADA	0.3560	1061.7	50.00
DRB1_0404	247	NAAHLQRARVPMPII	HLQRARVPM	0.3554	1068.6	50.00
DRB1_0404	538	EAKANVRRFVDDISF	NVRRFVDDI	0.3546	1078.2	50.00
DRB1_0404	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.3539	1087.0	50.00
DRB1_0404	320	AVSLGSELSVVNDPN	SLGSELSVV	0.3526	1101.6	50.00
DRB1_0404	192	LLPEADAVLVSDTS	AVLVSDTS	0.3518	1111.8	50.00
DRB1_0404	457	VMGTDFGRLKALGRM	TDFGRLKAL	0.3513	1117.3	50.00
DRB1_0404	2	PAGLCAYRDLRRKRA	GLCAYRDLR	0.3512	1118.1	50.00
DRB1_0404	310	GEIRSATEQLAVSLG	EIRSATEQL	0.3511	1120.2	50.00
DRB1_0404	162	PSPLLRRGGGLAFIDTP	PLLRRGGGLAF	0.3509	1121.9	50.00
DRB1_0404	474	KPLRRGHKMIIGMRG	RGHKMIIGM	0.3507	1124.9	50.00
DRB1_0404	587	SLQATIAAAQVAETE	SLQATIAAA	0.3505	1126.9	50.00
DRB1_0404	181	LGQPHLSATLGLLPE	HLSATLGLL	0.3503	1129.5	50.00
DRB1_0404	379	LRTFRFTVTEDAERQ	RFRTVTEDA	0.3503	1130.0	50.00
DRB1_0404	186	LSATLGLLPEADAVL	TLGLLPEAD	0.3485	1151.4	50.00
DRB1_0404	309	LGEIRSATEQLAVSL	EIRSATEQL	0.3480	1157.6	50.00
DRB1_0404	456	HVMGTDFGRLKALGR	TDFGRLKAL	0.3476	1163.2	50.00
DRB1_0404	187	SATLGLLPEADAVLV	TLGLLPEAD	0.3467	1174.1	50.00
DRB1_0404	210	TEPEMWFVRQAHQIC	EMWFVRQAH	0.3452	1194.3	50.00
DRB1_0404	483	IIGMRGSGYGVVMIG	IIGMRGSGY	0.3441	1207.7	50.00
DRB1_0404	149	AGGREVLRVEVGAPS	VLRVEVGAP	0.3431	1221.7	50.00
DRB1_0404	454	SPHVMGTDFGRLKAL	PHVMGTDFG	0.3419	1236.6	50.00
DRB1_0404	303	RVRAGVLGEIRSATE	GVLGEIRSA	0.3409	1250.4	50.00
DRB1_0404	3	AGLCAYRDLRRKRAR	GLCAYRDLR	0.3405	1256.2	50.00
DRB1_0404	233	KTDLYPRWREIVNAN	RWREIVNAN	0.3397	1266.6	50.00
DRB1_0404	225	PVGAVVATKTDLYPR	AVVATKTDL	0.3387	1280.3	50.00
DRB1_0404	356	QTALWQQVLDGDFND	TALWQQVLDG	0.3384	1284.9	50.00
DRB1_0404	564	MIQRLLRDHYREIAE	MIQRLLRDH	0.3363	1314.6	50.00
DRB1_0404	438	RSFADAGLDSVLSAE	FADAGLDSV	0.3350	1333.2	50.00
DRB1_0404	281	EESNFPAIVKFLSEQ	NFPAIVKFL	0.3340	1347.1	50.00
DRB1_0404	27	DDPRRVGVIVELIDH	RRVGVIVEL	0.3325	1368.8	50.00
DRB1_0404	514	GAGLILGRMAYKEDK	GLILGRMAY	0.3308	1394.4	50.00
DRB1_0404	226	VGAVVATKTDLYPRW	AVVATKTDL	0.3299	1408.9	50.00
DRB1_0404	515	AGLILGRMAYKEDKQ	GLILGRMAY	0.3295	1414.5	50.00
DRB1_0404	113	AQPSARLVLAAGPDG	SARLVLAAG	0.3295	1414.7	50.00
DRB1_0404	353	AVQQTALWQQVLDG	QQTALWQQV	0.3285	1429.8	50.00
DRB1_0404	436	VARSFADAGLDSVLS	FADAGLDSV	0.3271	1451.9	50.00
DRB1_0404	623	LAGLEPTLTTPRASLG	LAGLEPTLT	0.3264	1463.2	50.00
DRB1_0404	190	LGLLPEADAVLVVSD	LLPEADAVL	0.3258	1472.0	50.00
DRB1_0404	516	GLILGRMAYKEDKQN	GLILGRMAY	0.3254	1478.5	50.00
DRB1_0404	545	RFVDDISFVVSKQSR	RFVDDISFV	0.3248	1489.0	50.00
DRB1_0404	452	ELSPHVMGTDFGRLK	PHVMGTDFG	0.3245	1493.1	50.00
DRB1_0404	546	FVDDISFVVSKQSRD	SFVVSKQSR	0.3241	1499.7	50.00
DRB1_0404	73	VIAGLLKQGKSQLLN	LLKQGKSQL	0.3241	1500.3	50.00
DRB1_0404	313	RSATEQLAVSLGSEL	ATEQLAVSL	0.3238	1504.3	50.00
DRB1_0404	453	LSPHVMGTDFGRLKA	PHVMGTDFG	0.3238	1505.0	50.00
DRB1_0404	227	GAVVATKTDLYPRWR	AVVATKTDL	0.3227	1523.2	50.00
DRB1_0404	52	GDLVQRLTRARQRIT	LVQRLTRAR	0.3222	1531.4	50.00
DRB1_0404	357	TALWQQVLDGDFNDL	TALWQQVLDG	0.3187	1590.1	50.00
DRB1_0404	375	VDHDLRTRFRFTVTE	DLRTRFRFTV	0.3180	1602.5	50.00
DRB1_0404	380	RTRFRFTVTEDAERQI	RFRTVTEDA	0.3178	1605.0	50.00
DRB1_0404	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.3177	1606.7	50.00
DRB1_0404	417	AVGDNFVWAYQRSEA	FVWAYQRSE	0.3175	1610.5	50.00
DRB1_0404	224	CPVGAVVATKTDLYP	AVVATKTDL	0.3156	1643.4	50.00
DRB1_0404	223	ICPVGAVVATKTDLY	AVVATKTDL	0.3133	1685.1	50.00
DRB1_0404	180	GLGQPHLSATLGLLP	HLSATLGLL	0.3128	1695.5	50.00
DRB1_0404	601	ERDNRIRELQRQLGI	RIRELQRQL	0.3100	1746.1	50.00
DRB1_0404	473	SKPLRRGHKMIIGMR	PLRRGHKMI	0.3093	1760.3	50.00
DRB1_0404	513	VGAGLILGRMAYKED	GLILGRMAY	0.3073	1799.2	50.00
DRB1_0404	64	RITDPQVRVVIAGLL	QVRVVIAGL	0.3068	1808.7	50.00
DRB1_0404	97	VGDDEATVVITVVSYS	TVVITVVSYS	0.3068	1809.4	50.00
DRB1_0404	156	RVEVGAPSPLLRGGL	RVEVGAPSP	0.3061	1823.0	50.00
DRB1_0404	302	ERVVRAGVLGEIRSAT	GVLGEIRSA	0.3057	1831.1	50.00
DRB1_0404	228	AVVATKTDLYPRWRE	AVVATKTDL	0.3035	1873.8	50.00
DRB1_0404	53	DLVQRLTRARQRITD	LVQRLTRAR	0.3034	1877.2	50.00
DRB1_0404	451	AELSPHVMGTDFGRL	PHVMGTDFG	0.3025	1895.6	50.00

DRB1_0404	352	QAVQQTALWQQVLGD	QQTALWQQV	0.3017	1910.4	50.00
DRB1_0404	526	EDKQNRLLRVRSEAK	RLLRVRSEA	0.3015	1915.6	50.00
DRB1_0404	616	LSQVNDNLAGEPTL	NLAGEPTL	0.2994	1960.3	50.00
DRB1_0404	191	GLLPEADAVLVVSDT	LLPEADAVL	0.2988	1973.1	50.00
DRB1_0404	555	SKSRDRLLKMIQRL	RLKMIQRL	0.2979	1992.2	50.00
DRB1_0404	437	ARSFADAGLDSVLSA	FADAGLDSV	0.2963	2026.6	50.00
DRB1_0404	507	LFNPLSVGAGLILGR	FNPLSVGAG	0.2943	2070.7	50.00
DRB1_0404	161	APSPLLRGGLAFIDT	PLLRGGLAF	0.2938	2082.3	50.00
DRB1_0404	41	HTIAIAKLNERGDLV	IAIAKLNER	0.2935	2089.3	50.00
DRB1_0404	435	DVARSFADAGLDSVL	VARSFADAG	0.2926	2108.0	50.00
DRB1_0404	246	ANAHLQRARVPMPI	HLQRARVPM	0.2920	2123.2	50.00
DRB1_0404	423	VWAYQRSEALADDVA	WAYQRSEAL	0.2915	2133.9	50.00
DRB1_0404	242	EIVNANAHLQRARV	EIVNANAHAH	0.2894	2182.3	50.00
DRB1_0404	108	VVSYSAQPSARLVLA	VVSYSAQPS	0.2877	2224.2	50.00
DRB1_0404	40	DHTIAIAKLNERGDL	IAIAKLNER	0.2872	2235.8	50.00
DRB1_0404	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.2866	2251.3	50.00
DRB1_0404	131	AVDIPVDDISTDVR	DIPVDDIST	0.2850	2265.1	50.00
DRB1_0404	209	FTEPEMWFVRQAHQI	EMWFVRQAH	0.2859	2266.3	50.00
DRB1_0404	4	GLCAYRDLRRKRARK	GLCAYRDLR	0.2855	2276.3	50.00
DRB1_0404	434	DDVARSFADAGLDSV	VARSFADAG	0.2848	2293.7	50.00
DRB1_0404	551	SFVVSKQSRDRLKMI	SFVVSKQSR	0.2813	2383.8	50.00
DRB1_0404	424	WAYQRSEALADDVAR	WAYQRSEAL	0.2809	2393.9	50.00
DRB1_0404	50	ERGLDVQRLTRARQR	LVQRLTRAR	0.2797	2425.3	50.00
DRB1_0404	575	EIAEIEITRSLTESLQ	ITRSLTESL	0.2793	2436.4	50.00
DRB1_0404	132	VDIPVDDISTDVRRA	DIPVDDIST	0.2784	2460.0	50.00
DRB1_0404	59	TRARQRITDPQVRV	RQRITDPQV	0.2775	2482.1	50.00
DRB1_0404	466	KALGRMESKPLRRGH	LGRMESKPL	0.2772	2491.6	50.00
DRB1_0404	130	AAVDIPVDDISTDVR	DIPVDDIST	0.2771	2493.5	50.00
DRB1_0404	390	AERQIDSCDPTAHWA	QIDSCDPTA	0.2766	2508.2	50.00
DRB1_0404	391	ERQIDSCDPTAHWAE	QIDSCDPTA	0.2759	2526.2	50.00
DRB1_0404	448	VLSAELSPHVMGTDF	VLSAELSPH	0.2753	2542.5	50.00
DRB1_0404	14	KRARKWGDTVTPDD	RARKWGDTV	0.2752	2546.7	50.00
DRB1_0404	148	HAGGREVLRVEVGAP	EVLRVEVGA	0.2751	2548.8	50.00
DRB1_0404	351	QQAVQQTALWQQVLG	QQTALWQQV	0.2748	2557.2	50.00
DRB1_0404	133	DIPVDDISTDVRRAP	DIPVDDIST	0.2744	2567.8	50.00
DRB1_0404	39	IDHTIAIAKLNERGD	IAIAKLNER	0.2740	2579.9	50.00
DRB1_0404	58	LRARQRITDPQVRV	RQRITDPQV	0.2730	2607.5	50.00
DRB1_0404	312	IRSATEQLAVSLGSE	ATEQLAVSL	0.2730	2608.2	50.00
DRB1_0404	450	SAELSPHVMGTDFGR	PHVMGTDFG	0.2729	2609.3	50.00
DRB1_0404	15	RARKWGDTVTPDDP	RARKWGDTV	0.2726	2619.5	50.00
DRB1_0404	374	DVDHDLRTRFRVTVE	DLRTRFRTV	0.2716	2647.6	50.00
DRB1_0404	472	ESKPLRRGHKMIIGM	PLRRGHKMI	0.2707	2671.9	50.00
DRB1_0404	416	TAVGDNFVWAYQRSE	FVWAYQRSE	0.2695	2706.5	50.00
DRB1_0404	54	LVQRLTRARQRITDP	LVQRLTRAR	0.2685	2736.5	50.00
DRB1_0404	280	NEESNFPPIVVKFLSE	NFPPIVVKFL	0.2682	2747.0	50.00
DRB1_0404	537	SEAKANVRRFVDDIS	NVRRFVDDI	0.2681	2747.9	50.00
DRB1_0404	392	RQIDSCDPTAHWAEI	QIDSCDPTA	0.2679	2755.0	50.00
DRB1_0404	60	RARQRITDPQVRVVI	RQRITDPQV	0.2677	2759.7	50.00
DRB1_0404	179	SGVGLPHLSATLGLL	HLSATLGLL	0.2675	2767.8	50.00
DRB1_0404	512	SGLGAGLILGRMAYKE	GLILGRMAY	0.2672	2776.1	50.00
DRB1_0404	43	IAIAKLNERGDLVQR	IAIAKLNER	0.2664	2799.7	50.00
DRB1_0404	589	QATIAAAQVAETERD	TIAAAQVAE	0.2662	2807.6	50.00
DRB1_0404	38	LIDHTIAIAKLNERG	HTIAIAKLN	0.2654	2829.5	50.00
DRB1_0404	291	FLSEQVLSRATERVR	FLSEQVLSR	0.2652	2835.2	50.00
DRB1_0404	13	RKRARKWGDTVTPDP	RARKWGDTV	0.2641	2871.0	50.00
DRB1_0404	359	LWQQVLDGDFNDLTA	VLGDGFNDL	0.2637	2884.6	50.00
DRB1_0404	381	TRFRTVTEDAERQID	RFRTVTEDA	0.2636	2886.7	50.00
DRB1_0404	486	MRGSYGGVVMIGMLS	YGGVVMIGM	0.2622	2930.5	50.00
DRB1_0404	588	LQATIAAAQVAETER	TIAAAQVAE	0.2601	2998.5	50.00
DRB1_0404	26	PDDPRRVGVIVELID	RRVGVIVEL	0.2600	3001.6	50.00
DRB1_0404	433	ADDVARSFADAGLDS	VARSFADAG	0.2582	3058.7	50.00
DRB1_0404	301	TERRVAGVLGEIRSA	VLGEIRSA	0.2580	3064.9	50.00
DRB1_0404	360	WQQVLDGDFNDLTAD	VLGDGFNDL	0.2578	3074.4	50.00
DRB1_0404	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.2567	3108.9	50.00
DRB1_0404	57	RLTRARQRITDPQVR	RARQRITDP	0.2558	3140.2	50.00
DRB1_0404	358	ALWQQVLDGDFNDLT	LWQQVLDG	0.2550	3166.0	50.00
DRB1_0404	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.2542	3196.1	50.00
DRB1_0404	63	QRITDPQVRVVIAGL	QVRVVIAGL	0.2534	3222.4	50.00
DRB1_0404	485	GMRGSYGGVVMIGML	YGGVVMIGM	0.2520	3272.3	50.00
DRB1_0404	590	ATIAAAQVAETERDN	TIAAAQVAE	0.2515	3290.2	50.00

DRB1_0404	245	NANAAHLQRRARVPM	HLQRRARVPM	0.2506	3322.9	50.00
DRB1_0404	176	PGVGGLGQPHLSATL	GVGGLGQPH	0.2491	3376.7	50.00
DRB1_0404	574	REIAEEITRSLTESL	ITRSLTESL	0.2486	3392.9	50.00
DRB1_0404	12	RKRARKWGDVTQ	RARKWGDTV	0.2484	3400.4	50.00
DRB1_0404	467	ALGRMESKPLRRGHK	LGRMESKPL	0.2480	3418.6	50.00
DRB1_0404	361	QQVLGDGFNDLTADV	VLGDGFNDL	0.2474	3440.1	50.00
DRB1_0404	112	SAQPSARLVLAAGPD	SARLVLAAG	0.2467	3466.0	50.00
DRB1_0404	517	LILGRMAYKEDKQNR	LILGRMAYK	0.2467	3467.0	50.00
DRB1_0404	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.2466	3470.5	50.00
DRB1_0404	600	TERDNRIRELQRQLG	RIRELQRQL	0.2455	3510.6	50.00
DRB1_0404	565	IQRLLRDHYREIAEE	IQRLLRDHY	0.2439	3571.9	50.00
DRB1_0404	129	TAAVDIPVDDISTDV	DIPVDDIST	0.2429	3609.7	50.00
DRB1_0404	508	FNPLSVGAGLILGRM	NPLSVGAGL	0.2393	3753.6	50.00
DRB1_0404	449	LSAELSPHVMGTDFG	PHVMGTDFG	0.2380	3806.7	50.00
DRB1_0404	62	RQRITDPQVRVVIAG	RQRITDPQV	0.2369	3852.7	50.00
DRB1_0404	362	QVLGDGFNDLTADV	VLGDGFNDL	0.2364	3871.8	50.00
DRB1_0404	591	TIAAAQVAETERDNR	TIAAAQVAE	0.2353	3919.7	50.00
DRB1_0404	525	KEDKQNRLLRVRSEA	NRLLRVRSE	0.2352	3925.2	50.00
DRB1_0404	511	LSVGAGLILGRMAYK	GLILGRMAY	0.2351	3930.3	50.00
DRB1_0404	56	QRLTRARQRITDPQV	RARQRITDP	0.2350	3932.9	50.00
DRB1_0404	89	LLNLPAARVGDDDEAT	LLNLPAARV	0.2333	4007.2	50.00
DRB1_0404	49	NERGDLVQRLTRARQ	LVQRLTRAR	0.2330	4018.0	50.00
DRB1_0404	267	LRSHAVTLNDKELNE	HAVTLNDKE	0.2329	4024.7	50.00
DRB1_0404	484	IGMRSGYGGVVMIGM	GMRSGYGGV	0.2325	4039.5	50.00
DRB1_0404	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.2322	4052.2	50.00
DRB1_0404	175	TPGVGGLGQPHLSAT	GVGGLGQPH	0.2316	4078.1	50.00
DRB1_0404	157	VEVGAPSPLLRGGLA	EVGAPSPLL	0.2302	4142.5	50.00
DRB1_0404	363	VLGDGFNDLTADV	VLGDGFNDL	0.2290	4195.8	50.00
DRB1_0404	178	VGGLGQPHLSATLGL	GQPHLSATL	0.2283	4230.5	50.00
DRB1_0404	268	RSHAVTLNDKELNEE	HAVTLNDKE	0.2281	4236.0	50.00
DRB1_0404	174	DTPGVGGLGQPHLSA	GVGGLGQPH	0.2274	4268.0	50.00
DRB1_0404	128	TTAAVDIPVDDISTD	DIPVDDIST	0.2273	4273.7	50.00
DRB1_0404	328	SVVNDPNLRDRLASD	SVVNDPNLR	0.2266	4306.2	50.00
DRB1_0404	61	ARQRITDPQVRVVIAG	RQRITDPQV	0.2261	4328.4	50.00
DRB1_0404	432	LADDVARSFADAGLD	VARSFADAG	0.2248	4390.5	50.00
DRB1_0404	388	EDAERQIDSCDPTAH	QIDSCDPT	0.2248	4394.0	50.00
DRB1_0404	208	EFTEPEMWFVRQAHQ	EMWFVRQAH	0.2245	4404.3	50.00
DRB1_0404	177	GVGGLGQPHLSATLG	VGGLGQPHL	0.2235	4454.8	50.00
DRB1_0404	409	DVENAIATAVGDNFV	VENAIATAV	0.2228	4486.9	50.00
DRB1_0404	350	AQQAVQQTALWQQVL	QQTALWQQV	0.2205	4602.6	50.00
DRB1_0404	625	GLEPTLTTPRASLGRA	PTLTTPRASL	0.2198	4635.0	50.00
DRB1_0404	408	NDVENAIATAVGDNF	VENAIATAV	0.2197	4641.4	50.00
DRB1_0404	471	MESKPLRRGHKMIIG	LRRGHKMI	0.2179	4734.4	50.00
DRB1_0404	468	LGRMESKPLRRGHKM	LGRMESKPL	0.2166	4800.1	50.00
DRB1_0404	333	PNLRDRLASDLERRK	NLRDRLASD	0.2160	4832.5	50.00
DRB1_0404	509	NPLSVGAGLILGRMA	SVGAGLILG	0.2150	4885.3	50.00
DRB1_0404	11	LRRKRARKWGDVTQ	RARKWGDTV	0.2141	4929.7	50.00
DRB1_0404	269	SHAVTLNDKELNEES	HAVTLNDKE	0.2133	4974.3	50.00
DRB1_0404	243	IVNANAAHLQRRARVP	IVNANAAHL	0.2118	5055.4	50.00
DRB1_0404	410	VENAIATAVGDNFVW	VENAIATAV	0.2116	5066.9	50.00
DRB1_0404	373	ADVHDHLRTRFRFTV	DLRTRFRFTV	0.2104	5131.7	50.00
DRB1_0404	624	AGLEPTLTTPRASLGR	PTLTTPRASL	0.2101	5151.6	50.00
DRB1_0404	510	PLSVGAGLILGRMAY	GLILGRMAY	0.2086	5232.0	50.00
DRB1_0404	55	VQRLTRARQRITDPQ	LTRARQRIT	0.2086	5233.2	50.00
DRB1_0404	430	EALADDVARSFADAG	EALADDVAR	0.2083	5248.8	50.00
DRB1_0404	566	QRLLRDHYREIAEEI	LLRDHYREI	0.2081	5258.9	50.00
DRB1_0404	160	GAPSPLLRGGLAFID	PLLRGGLAF	0.2077	5285.8	50.00
DRB1_0404	407	GNDVENAIATAVGDN	VENAIATAV	0.2073	5307.9	50.00
DRB1_0404	158	EVGAPSPLLRGGLAF	EVGAPSPLL	0.2064	5359.2	50.00
DRB1_0404	349	EAQQAVQQTALWQQV	QQAVQQTAL	0.2045	5469.4	50.00
DRB1_0404	147	PHAGGREVLRVEVGA	EVLRVEVGA	0.2045	5471.3	50.00
DRB1_0404	300	ATERVRAGVLGEIRS	RVRAGVLGE	0.2038	5511.7	50.00
DRB1_0404	173	IDTPGVGGLGQPHLS	GVGGLGQPH	0.2033	5543.4	50.00
DRB1_0404	332	DPNLRDRLASDLERR	NLRDRLASD	0.2019	5626.7	50.00
DRB1_0404	127	GTTAAVDIPVDDIST	DIPVDDIST	0.2009	5689.7	50.00
DRB1_0404	172	FIDTPGVGGLGQPHL	PGVGGLGQP	0.1980	5870.5	50.00
DRB1_0404	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.1967	5950.7	50.00
DRB1_0404	334	NLRDRLASDLERRKR	NLRDRLASD	0.1957	6019.6	50.00
DRB1_0404	412	NAIATAVGDNFVWAY	IATAVGDNF	0.1954	6038.7	50.00
DRB1_0404	279	LNEESNFPPIVKFLS	NFPPIVKFL	0.1948	6078.8	50.00

DRB1_0404	411	ENAIATAVGDNFVWA	IATAVGDNF	0.1946	6090.8	50.00
DRB1_0404	533	LRVRSEAKANVRRFV	RVRSEAKAN	0.1923	6243.4	50.00
DRB1_0404	270	HAVTLNDKELNEESN	HAVTLNDKE	0.1916	6288.9	50.00
DRB1_0404	393	QIDSCDPTAHWAEIG	QIDSCDPTA	0.1892	6452.7	50.00
DRB1_0404	16	ARKWGDVTVTQPDDPR	RKWDGDTVTVQ	0.1888	6485.2	50.00
DRB1_0404	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.1878	6550.7	50.00
DRB1_0404	431	ALADDVARSFADAGL	VARSFADAG	0.1877	6564.5	50.00
DRB1_0404	599	ETERDNRIRELQRQL	RIRELQRQL	0.1875	6577.8	50.00
DRB1_0404	48	LNERGDLVQRLTRAR	LVQRLTRAR	0.1867	6634.9	50.00
DRB1_0404	331	NDPNLRDRLASDLER	NLRDRLASD	0.1850	6756.1	50.00
DRB1_0404	109	VSYSAQPSARLVLAAG	SYSAQPSAR	0.1836	6861.3	50.00
DRB1_0404	171	AFIDTPGVGGLGQPH	AFIDTPGVG	0.1836	6861.8	50.00
DRB1_0404	348	REAQQAVQQTALWQQ	QQAVQQTAL	0.1819	6986.1	50.00
DRB1_0404	536	RSEAKANVRRFVDDI	NVRRFVDDI	0.1815	7017.5	50.00
DRB1_0404	406	IGNDVENAIATAVGD	DVENAIATA	0.1815	7019.8	50.00
DRB1_0404	592	IAAAQVAETERDNRI	IAAAQVAET	0.1796	7160.8	50.00
DRB1_0404	244	VNANAHLQRARVPM	HLQRARVPM	0.1785	7244.9	50.00
DRB1_0404	111	YSAQPSARLVLAAGP	SARLVLAAG	0.1763	7419.0	50.00
DRB1_0404	17	RKWGDTVTVQPDPRR	RKWGDTVTVQ	0.1761	7438.2	50.00
DRB1_0404	470	RMESKPLRRGHKMI I	PLRRGHKMI	0.1752	7509.7	50.00
DRB1_0404	159	VGAPSPLLRGGLAFI	PLLRGGLAF	0.1745	7567.3	50.00
DRB1_0404	572	HYREIAEEITRSLTE	HYREIAEEI	0.1739	7620.2	50.00
DRB1_0404	110	SYSAQPSARLVLAAG	SYSAQPSAR	0.1728	7710.6	50.00
DRB1_0404	402	HWAEIGNDVENAIAT	HWAEIGNDV	0.1722	7760.7	50.00
DRB1_0404	405	EIGNDVENAIATAVG	EIGNDVENA	0.1720	7775.8	50.00
DRB1_0404	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.1715	7817.6	50.00
DRB1_0404	425	AYQRSEALADDVARS	YQRSEALAD	0.1708	7879.0	50.00
DRB1_0404	10	DLRRKRARKWGDVTV	RARKWGDTV	0.1701	7937.9	50.00
DRB1_0404	232	TKTDLYPRWREIVNA	DLYPRWREI	0.1698	7963.8	50.00
DRB1_0404	571	DHYREIAEEITRSLT	HYREIAEEI	0.1695	7988.8	50.00
DRB1_0404	426	YQRSEALADDVARSF	EALADDVAR	0.1694	8000.5	50.00
DRB1_0404	364	LGDGFNDLTADVHDH	GFNDLTADV	0.1693	8009.6	50.00
DRB1_0404	366	DGFNDLTADVHDHDLR	GFNDLTADV	0.1666	8248.0	50.00
DRB1_0404	90	LNLPAARVGDDEATV	LNLPAARVG	0.1665	8252.3	50.00
DRB1_0404	365	GDGFNDLTADVHDHDL	DGFNDLTAD	0.1661	8284.5	50.00
DRB1_0404	568	LLRDHYREIAEEITR	LLRDHYREI	0.1657	8325.3	50.00
DRB1_0404	126	DGTTAAVDIPVDDIS	TTAAVDIPV	0.1638	8496.7	50.00
DRB1_0404	401	AHWAEIGNDVENAIAT	HWAEIGNDV	0.1634	8532.7	50.00
DRB1_0404	414	IATAVGDNFVWAYQR	IATAVGDNF	0.1614	8721.4	50.00
DRB1_0404	413	AIATAVGDNFVWAYQ	IATAVGDNF	0.1612	8738.5	50.00
DRB1_0404	400	TAHWAEIGNDVENAI	HWAEIGNDV	0.1593	8925.0	50.00
DRB1_0404	330	VNDPNLRDRLASDLER	NLRDRLASD	0.1584	9010.2	50.00
DRB1_0404	570	RDHYREIAEEITRSL	HYREIAEEI	0.1575	9097.7	50.00
DRB1_0404	293	SEQVLSRATERVRAG	QVLSRATER	0.1574	9107.9	50.00
DRB1_0404	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.1573	9113.6	50.00
DRB1_0404	299	RATERVRAGVLGEIR	RVRAGVLGE	0.1572	9126.2	50.00
DRB1_0404	347	KREAQQAVQQTALWQ	QQAVQQTAL	0.1572	9126.4	50.00
DRB1_0404	573	YREIAEEITRSLTES	REIAEEITR	0.1572	9127.3	50.00
DRB1_0404	125	PDGTTAAVDIPVDDI	TTAAVDIPV	0.1567	9179.8	50.00
DRB1_0404	404	AEIGNDVENAIATAV	EIGNDVENA	0.1564	9205.0	50.00
DRB1_0404	427	QRSEALADDVARSF	EALADDVAR	0.1552	9328.6	50.00
DRB1_0404	429	SEALADDVARSFADA	EALADDVAR	0.1546	9388.7	50.00
DRB1_0404	428	RSEALADDVARSFAD	EALADDVAR	0.1539	9453.0	50.00
DRB1_0404	294	EQVLSRATERVRAGV	QVLSRATER	0.1536	9493.7	50.00
DRB1_0404	292	LSEQVLSRATERVRA	QVLSRATER	0.1529	9564.1	50.00
DRB1_0404	207	QEFTEPEMWFVRQAH	QMWVFRQAH	0.1523	9622.6	50.00
DRB1_0404	18	KWGDTVTVPDDPRRV	TVTQPDDPR	0.1518	9670.8	50.00
DRB1_0404	554	VSKQSRDRLKMIQRL	DRLKMIQRL	0.1505	9817.7	50.00
DRB1_0404	346	RKREAQQAVQQTALW	QQAVQQTAL	0.1502	9839.4	50.00
DRB1_0404	329	VVNDPNLRDRLASDL	NLRDRLASD	0.1502	9847.0	50.00
DRB1_0404	278	ELNEESNFPPIVKFL	NEESNFPPI	0.1502	9847.4	50.00
DRB1_0404	567	LLRDHYREIAEEITR	LLRDHYREI	0.1498	9891.3	50.00
DRB1_0404	295	QVLSRATERVRAGVL	QVLSRATER	0.1486	10019.8	50.00
DRB1_0404	399	PTAHWAEIGNDVENA	HWAEIGNDV	0.1477	10118.3	50.00
DRB1_0404	21	DTVTQPDDPRRVGVI	TVTQPDDPR	0.1476	10120.9	50.00
DRB1_0404	20	GDTVTVQPDPRRVGV	TVTQPDDPR	0.1475	10140.6	50.00
DRB1_0404	372	TADVHDHLRTRFRTV	DLRTRFRTV	0.1473	10154.7	50.00
DRB1_0404	524	YKEDKQNRLLRVRS	NRLLRVRS	0.1472	10173.4	50.00
DRB1_0404	19	WGDTVTVPDDPRRVG	TVTQPDDPR	0.1466	10235.4	50.00
DRB1_0404	569	LRDHYREIAEEITRS	HYREIAEEI	0.1463	10263.1	50.00

DRB1_0404	403	WAEIGNDVENAIATA	EIGNDVENA	0.1461	10289.8	50.00
DRB1_0404	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.1451	10399.0	50.00
DRB1_0404	9	RDLRRKRARKWGDV	RARKWGDV	0.1426	10685.8	50.00
DRB1_0404	47	KLNERGDLVQRLTRA	DLVQRLTRA	0.1425	10701.7	50.00
DRB1_0404	231	ATKTDLYPRWREIVN	LYPRWREIV	0.1421	10746.2	50.00
DRB1_0404	277	KELNEESNFPAIVKF	KELNEESNF	0.1417	10790.7	50.00
DRB1_0404	22	TVTQPDPPRRVGVIV	TVTQPDPPR	0.1411	10859.5	50.00
DRB1_0404	91	NLPAARVGDDEATVV	NLPAARVGD	0.1411	10866.5	50.00
DRB1_0404	386	VTEDAERQIDSCDPT	RQIDSCDPT	0.1409	10889.1	50.00
DRB1_0404	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.1408	10896.6	50.00
DRB1_0404	271	AVTLNDKELNEESNF	AVTLNDKEL	0.1382	11207.7	50.00
DRB1_0404	96	RVGDDEATVVITVVS	RVGDDEATV	0.1369	11372.3	50.00
DRB1_0404	367	GFNDLTADVHDHLRT	GFNDLTADV	0.1355	11538.4	50.00
DRB1_0404	276	DKELNEESNFPAIVK	KELNEESNF	0.1353	11563.2	50.00
DRB1_0404	229	VVATKTDLYPRWREI	VVATKTDLY	0.1350	11608.9	50.00
DRB1_0404	24	TQPDDPPRRVGVIVEL	RRVGVIVEL	0.1347	11643.2	50.00
DRB1_0404	298	SRATERVRAGVLGEI	RVRAGVLGE	0.1347	11644.9	50.00
DRB1_0404	5	LCAYRDLRRKRARKW	LCAYRDLRR	0.1332	11827.1	50.00
DRB1_0404	335	LRDRLASDLERKRE	LRDRLASDL	0.1327	11902.2	50.00
DRB1_0404	398	DPTAHWAEIGNDVEN	HWAEIGNDV	0.1312	12095.8	50.00
DRB1_0404	518	ILGRMAYKEDKQNRLL	LGRMAYKED	0.1293	12343.8	50.00
DRB1_0404	124	GPDGTTAAVDIPVDD	TTAAVDIPV	0.1291	12373.6	50.00
DRB1_0404	275	NDKELNEESNFPAIV	KELNEESNF	0.1289	12396.7	50.00
DRB1_0404	553	VVSKQSRDRCLKMIQR	VVSKQSRDR	0.1289	12402.3	50.00
DRB1_0404	345	RRKREAQQAVQQTAL	RKREAQQAV	0.1283	12482.7	50.00
DRB1_0404	134	IPVDDISTDVRRAPH	IPVDDISTD	0.1255	12861.2	50.00
DRB1_0404	95	ARVGDDEATVVITVV	ARVGDDEAT	0.1253	12882.7	50.00
DRB1_0404	297	LSRATERVRAGVLGE	RVRAGVLGE	0.1253	12886.7	50.00
DRB1_0404	519	LGRMAYKEDKQNRLL	LGRMAYKED	0.1250	12928.3	50.00
DRB1_0404	469	GRMSKPLRRGHKMI	PLRRGHKMI	0.1247	12975.7	50.00
DRB1_0404	230	VATKTDLYPRWREIV	LYPRWREIV	0.1167	14142.8	50.00
DRB1_0404	274	LNDKELNEESNFPAI	KELNEESNF	0.1158	14281.0	50.00
DRB1_0404	92	LPAARVGDDEATVVI	RVGDDEATV	0.1156	14314.3	50.00
DRB1_0404	146	APHAGGREVLRLVEVG	REVLRLVEVG	0.1151	14389.6	50.00
DRB1_0404	397	CDPTAHWAEIGNDVE	HWAEIGNDV	0.1151	14398.5	50.00
DRB1_0404	368	FNDLTADVHDHLRTR	FNDLTADV	0.1139	14576.4	50.00
DRB1_0404	94	AARVGDDEATVVITV	RVGDDEAT	0.1129	14739.6	50.00
DRB1_0404	44	AIAKLNERGDLVQRL	KLNERGDLV	0.1112	15009.8	50.00
DRB1_0404	93	PAARVGDDEATVVIT	ARVGDDEAT	0.1109	15065.9	50.00
DRB1_0404	344	ERRKREAQQAVQQT	RKREAQQAV	0.1105	15122.1	50.00
DRB1_0404	383	FRTVTEAERQIDSC	FRTVTEDAE	0.1101	15189.1	50.00
DRB1_0404	272	VTLNDKELNEESNF	VTLNDKELN	0.1067	15766.2	50.00
DRB1_0404	141	TDVRRAPHAGGREVL	DVRRAPHAG	0.1045	16138.1	50.00
DRB1_0404	273	TLNDKELNEESNFPA	KELNEESNF	0.1034	16341.4	50.00
DRB1_0404	593	AAAQVAETERDNRIR	AAAQVAETE	0.1032	16377.2	50.00
DRB1_0404	140	STDVRRAPHAGGREV	DVRRAPHAG	0.1030	16413.3	50.00
DRB1_0404	123	AGPDGTTAAVDIPVD	TTAAVDIPV	0.1026	16469.0	50.00
DRB1_0404	46	AKLNERGDLVQRLTR	KLNERGDLV	0.1022	16546.7	50.00
DRB1_0404	520	GRMAYKEDKQNRLLR	GRMAYKEDK	0.1021	16557.3	50.00
DRB1_0404	45	IACLNERGDLVQRLT	KLNERGDLV	0.1016	16656.5	50.00
DRB1_0404	369	NDLTADVHDHLRTRF	NDLTADVHD	0.1014	16692.5	50.00
DRB1_0404	343	LERRKREAQQAVQQT	RKREAQQAV	0.1008	16809.1	50.00
DRB1_0404	142	DVRRAPHAGGREVLR	DVRRAPHAG	0.1002	16914.5	50.00
DRB1_0404	396	SCDPTAHWAEIGNDV	HWAEIGNDV	0.0990	17128.7	50.00
DRB1_0404	296	VLSRATERVRAGVLG	VLSRATERV	0.0958	17725.5	50.00
DRB1_0404	139	ISTDVRRAPHAGGRE	DVRRAPHAG	0.0955	17790.8	50.00
DRB1_0404	206	SQEFTEPEMWFVRQA	PEMWFVRQA	0.0933	18217.8	50.00
DRB1_0404	385	TVTEAERQIDSCDP	DAERQIDSC	0.0915	18570.8	50.00
DRB1_0404	121	LAAGPDGTTAAVDIP	LAAGPDGTT	0.0913	18614.7	50.00
DRB1_0404	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.0912	18630.2	50.00
DRB1_0404	521	RMAYKEDKQNRLLRV	MAYKEDKQN	0.0897	18939.5	50.00
DRB1_0404	370	DLTADVHDHLRTRFR	DLTADVHDH	0.0891	19068.9	50.00
DRB1_0404	336	RDRLASDLERRKREA	DLASDLER	0.0868	19556.8	50.00
DRB1_0404	594	AAQVAETERDNRIRE	QVAETERDN	0.0853	19866.0	50.00
DRB1_0404	122	AAGPDGTTAAVDIPV	TTAAVDIPV	0.0852	19878.5	50.00
DRB1_0404	138	DISTDVRRAPHAGGR	DVRRAPHAG	0.0847	20007.3	50.00
DRB1_0404	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.0843	20086.9	50.00
DRB1_0404	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.0835	20263.3	50.00
DRB1_0404	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.0829	20390.8	50.00
DRB1_0404	384	RTVTEAERQIDSCD	RTVTEAER	0.0821	20565.9	50.00

DRB1_0404	535	VRSEAKANVRRFVDD	VRSEAKANV	0.0818	20627.8	50.00
DRB1_0404	203	SDTSQEFTEPEMWFV	DTSQEFTEP	0.0814	20729.2	50.00
DRB1_0404	595	AQVAETERDNRIREL	VAETERDNR	0.0796	21134.6	50.00
DRB1_0404	395	DSCDPTAHWAEIGND	DPTAHWAEI	0.0794	21171.6	50.00
DRB1_0404	523	AYKEDKQNRLLRVR	KQNRLLRVR	0.0794	21186.5	50.00
DRB1_0404	204	DTSQEFTEPEMWFVR	QEFTEPEMW	0.0776	21591.3	50.00
DRB1_0404	137	DDISTDVRRAPHAGG	TDVRRAPHA	0.0775	21608.8	50.00
DRB1_0404	202	VSDTSQEFTEPEMWF	DTSQEFTEP	0.0772	21677.2	50.00
DRB1_0404	145	RAPHAGGREVLRVEV	HAGGREVLR	0.0768	21788.2	50.00
DRB1_0404	205	TSQEFTEPEMWFVRQ	TSQEFTEPE	0.0762	21918.0	50.00
DRB1_0404	337	DLASDLERRKREAQ	RLASDLER	0.0759	22000.7	50.00
DRB1_0404	342	DLERRKREAQQAVQQ	RKREAQQAV	0.0753	22131.0	50.00
DRB1_0404	596	QVAETERDNRIRELQ	QVAETERDN	0.0705	23310.8	50.00
DRB1_0404	8	YRDLRRKRARKWGDT	LRRKRARKW	0.0692	23644.0	50.00
DRB1_0404	371	LTADVVDHDLRTRFRT	DVDHDLRTR	0.0689	23721.1	50.00
DRB1_0404	144	RRAPHAGGREVLRVE	HAGGREVLR	0.0682	23897.9	50.00
DRB1_0404	7	AYRDLRRKRARKWGD	AYRDLRRKR	0.0677	24031.7	50.00
DRB1_0404	341	SDLERRKREAQQAVQ	RKREAQQAV	0.0665	24362.3	50.00
DRB1_0404	135	PVDDISTDVRRAPHA	PVDDISTDV	0.0665	24362.3	50.00
DRB1_0404	597	VAETERDNRIRELQR	VAETERDNR	0.0663	24399.8	50.00
DRB1_0404	6	CAYRDLRRKRARKWG	AYRDLRRKR	0.0630	25301.5	50.00
DRB1_0404	136	VDDISTDVRRAPHAG	TDVRRAPHA	0.0623	25477.3	50.00
DRB1_0404	338	RLASDLERRKREAQQ	RLASDLERR	0.0616	25670.5	50.00
DRB1_0404	598	AETEDNRIRELQRQ	DNRIRELQR	0.0572	26922.1	50.00
DRB1_0404	340	ASDLERRKREAQQAV	RKREAQQAV	0.0566	27110.4	50.00
DRB1_0404	23	VTQPDDPRRVGVIVE	VTQPDDPRR	0.0548	27634.5	50.00
DRB1_0404	339	LASDLERRKREAQQA	RRKREAQQA	0.0446	30855.7	50.00

Allele: DRB1_0404. Number of high binders 32. Number of weak binders 126. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0405	82	KSQLLNSLLNLPAAAR	QLLNSLLNL	0.7885	9.9	SB	0.30
DRB1_0405	81	GKSQLLNSLLNLPAA	QLLNSLLNL	0.7846	10.3	SB	0.30
DRB1_0405	83	SQLLNSLLNLPAAARV	LLNSLLNLP	0.7830	10.5	SB	0.40
DRB1_0405	491	GGVVMIGMLSSVVGL	GVMIGMLS	0.7686	12.2	SB	0.80
DRB1_0405	80	QGKSQLLNSLLNLP	QLLNSLLNL	0.7667	12.5	SB	0.80
DRB1_0405	490	YGGVVMIGMLSSVVG	GVMIGMLS	0.7615	13.2	SB	0.80
DRB1_0405	84	QLLNSLLNLPAAARVG	LLNSLLNLP	0.7542	14.3	SB	0.80
DRB1_0405	489	SYGGVVMIGMLSSVV	GVMIGMLS	0.7529	14.5	SB	0.80
DRB1_0405	492	GVMVVMIGMLSSVGLG	GVMIGMLS	0.7386	16.9	SB	2.00
DRB1_0405	488	GSYGGVVMIGMLSSV	GVMIGMLS	0.7252	19.6	SB	2.00
DRB1_0405	79	KQGKSQLLNSLLNLP	KSQLLNSLL	0.7222	20.2	SB	2.00
DRB1_0405	487	RGSYGGVVMIGMLSS	GVMIGMLS	0.6891	28.9	SB	4.00
DRB1_0405	286	PAIVKFLSEQVLSRA	VKFLSEQVL	0.6889	28.9	SB	4.00
DRB1_0405	78	LKQGKSQLLNSLLNL	KSQLLNSLL	0.6871	29.5	SB	4.00
DRB1_0405	236	LYPRWREIVNANAHA	WREIVNANA	0.6830	30.9	SB	4.00
DRB1_0405	85	LLNSLLNLPAAARVGD	LLNSLLNLP	0.6818	31.3	SB	4.00
DRB1_0405	285	FPAIVKFLSEQVLSR	VKFLSEQVL	0.6794	32.1	SB	4.00
DRB1_0405	287	AIVKFLSEQVLSRAT	IVKFLSEQV	0.6792	32.2	SB	4.00
DRB1_0405	288	IVKFLSEQVLSRATE	VKFLSEQVL	0.6782	32.5	SB	4.00
DRB1_0405	237	YPRWREIVNANAHAHL	PRWREIVNA	0.6757	33.4	SB	4.00
DRB1_0405	235	LYPRWREIVNANAHA	PRWREIVNA	0.6706	35.3	SB	8.00
DRB1_0405	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.6702	35.4	SB	8.00
DRB1_0405	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.6699	35.6	SB	8.00
DRB1_0405	493	VVMIGMLSSVVGLGL	VVMIGMLSS	0.6674	36.5	SB	8.00
DRB1_0405	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.6630	38.3	SB	8.00
DRB1_0405	378	DLRTRFRTVTEDAER	TRFRTVTED	0.6596	39.8	SB	8.00
DRB1_0405	421	NFWAYQRSEALADD	FWWAYQRSE	0.6548	41.9	SB	8.00
DRB1_0405	379	LRTRFRTVTEDAERQ	TRFRTVTED	0.6531	42.7	SB	8.00
DRB1_0405	500	SSVVGLGLFNPLSVG	VGLGLFNPL	0.6489	44.6	SB	8.00
DRB1_0405	327	LSVVNDPNLRDRLAS	LSVVNDPNL	0.6489	44.7	SB	8.00
DRB1_0405	377	HDLRTRFRTVTEDAE	TRFRTVTED	0.6464	45.9	SB	8.00
DRB1_0405	234	TDLYPRWREIVNANA	PRWREIVNA	0.6457	46.2	SB	8.00
DRB1_0405	380	RTRFRTVTEDAERQI	TRFRTVTED	0.6428	47.7	SB	8.00
DRB1_0405	499	LSSVVGLGLFNPLSV	GLGLFNPLS	0.6413	48.5	SB	8.00
DRB1_0405	420	DNFVWAYQRSEALAD	FVWAYQRSE	0.6402	49.1	SB	8.00

DRB1_0405	548	DDISFVVSQSRDRL	ISFVVSQSQS	0.6395	49.4	SB	8.00
DRB1_0405	501	SVVGLGLFNPLSVGA	GLGLFNPLS	0.6380	50.2	WB	8.00
DRB1_0405	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.6348	52.0	WB	8.00
DRB1_0405	549	DISFVVSQSRDRLK	ISFVVSQSQS	0.6344	52.2	WB	8.00
DRB1_0405	238	PRWREIVNANAHLQ	WREIVNANA	0.6294	55.1	WB	8.00
DRB1_0405	502	VVGLGLFNPLSVGAG	GLGLFNPLS	0.6285	55.7	WB	8.00
DRB1_0405	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.6275	56.3	WB	8.00
DRB1_0405	558	SRDRLKMIQRLLRDH	RLKMIQRLL	0.6260	57.2	WB	16.00
DRB1_0405	77	LLKQKSQLLNLSLLN	SQLLNSLLN	0.6257	57.4	WB	16.00
DRB1_0405	547	VDDISFVVSQSRDR	ISFVVSQSQS	0.6224	59.5	WB	16.00
DRB1_0405	289	VKFLSEQVLSRATER	FLSEQVLSR	0.6221	59.7	WB	16.00
DRB1_0405	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.6218	59.8	WB	16.00
DRB1_0405	284	NFPAIVKFLSEQVLS	VKFLSEQVL	0.6213	60.2	WB	16.00
DRB1_0405	106	ITVVSYSQAQPSARLV	VSYSQAQPSA	0.6202	60.9	WB	16.00
DRB1_0405	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.6198	61.2	WB	16.00
DRB1_0405	107	TVVSYSQAQPSARLV	VSYSQAQPSA	0.6193	61.5	WB	16.00
DRB1_0405	422	FVMWIGLRSEALADDV	FVMWAYQRSE	0.6146	64.7	WB	16.00
DRB1_0405	494	VMIGMLSSVVGLGLF	VMIGMLSSV	0.6140	65.2	WB	16.00
DRB1_0405	550	ISFVVSQSRDRLKLM	FVVSQSQSRD	0.6109	67.3	WB	16.00
DRB1_0405	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.6109	67.4	WB	16.00
DRB1_0405	498	MLSSVVGLGLFNPLS	GLGLFNPLS	0.6099	68.1	WB	16.00
DRB1_0405	105	VITVVSYSQAQPSARL	TVVSYSQAQ	0.6079	69.6	WB	16.00
DRB1_0405	104	VVITVVSYSQAQPSAR	VVITVVSYS	0.6070	70.3	WB	16.00
DRB1_0405	486	MGRSYGGVVMIGMLS	GVMIGMLS	0.6068	70.4	WB	16.00
DRB1_0405	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.6051	71.7	WB	16.00
DRB1_0405	503	VGLGLFNPLSVGAGL	GLGLFNPLS	0.6037	72.8	WB	16.00
DRB1_0405	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.6035	72.9	WB	16.00
DRB1_0405	546	FVDDISFVVSQSQSRD	ISFVVSQSQS	0.6008	75.1	WB	16.00
DRB1_0405	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.5976	77.8	WB	16.00
DRB1_0405	418	VGDNFVWAYQRSEAL	FVWAYQRSE	0.5963	78.8	WB	16.00
DRB1_0405	608	ELQRQLGILSQVNDN	RQLGILSQV	0.5953	79.7	WB	16.00
DRB1_0405	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.5858	88.3	WB	16.00
DRB1_0405	609	LQRQLGILSQVNDNL	RQLGILSQV	0.5840	90.1	WB	16.00
DRB1_0405	610	QRQLGILSQVNDNLA	LGILSQVND	0.5823	91.7	WB	16.00
DRB1_0405	103	TVVITVVSYSQAQPSA	VVITVVSYS	0.5815	92.6	WB	16.00
DRB1_0405	283	SNFPAIVKFLSEQVL	IVKFLSEQV	0.5808	93.3	WB	16.00
DRB1_0405	495	MIGMLSSVVGLGLFN	GMLSSVVGL	0.5776	96.6	WB	16.00
DRB1_0405	86	LNSLLNLPAAARVGDD	NSLLNLPAA	0.5772	97.0	WB	16.00
DRB1_0405	611	RQLGILSQVNDNLAG	LGILSQVND	0.5752	99.1	WB	16.00
DRB1_0405	376	DHDLRTRFRTVTEDA	TRFRTVTED	0.5751	99.2	WB	16.00
DRB1_0405	164	PLLRRGGLAFIDTPGV	LAFIDTPGV	0.5732	101.3	WB	16.00
DRB1_0405	322	SLGSELSVVNDPNLR	LSVVNDPNL	0.5711	103.6	WB	16.00
DRB1_0405	544	RRFVDDISFVVSQSQS	ISFVVSQSQS	0.5704	104.4	WB	16.00
DRB1_0405	355	QQTALWQQVLGDGFN	ALWQQVLGD	0.5669	108.4	WB	16.00
DRB1_0405	356	QTALWQQVLGDGFND	ALWQQVLGD	0.5669	108.4	WB	16.00
DRB1_0405	607	RELQRQLGILSQVND	LQRQLGILS	0.5668	108.5	WB	16.00
DRB1_0405	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.5667	108.6	WB	16.00
DRB1_0405	528	KQNRLLRVRSEAKAN	NRLLRVRSE	0.5658	109.8	WB	16.00
DRB1_0405	496	IGMLSSVVGLGLFNP	GMLSSVVGL	0.5626	113.6	WB	32.00
DRB1_0405	255	RVPMPPIIAVSSLLRS	MPIIAVSSL	0.5624	113.9	WB	32.00
DRB1_0405	529	QNRLLRVRSEAKANV	LLRVRSEAK	0.5614	115.0	WB	32.00
DRB1_0405	256	VPMPPIIAVSSLLRSH	PIIAVSSLL	0.5585	118.8	WB	32.00
DRB1_0405	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.5583	119.0	WB	32.00
DRB1_0405	354	VQQTALWQQVLGDGF	ALWQQVLGD	0.5551	123.2	WB	32.00
DRB1_0405	197	DAVLVVSDTSQEFTE	LVVSDTSQE	0.5548	123.6	WB	32.00
DRB1_0405	381	TRFRTVTEDAERQID	TRFRTVTED	0.5548	123.6	WB	32.00
DRB1_0405	364	LGDFNDLTADVHDH	DGFNDLTAD	0.5547	123.7	WB	32.00
DRB1_0405	527	DKQNRLLRVRSEAKA	NRLLRVRSE	0.5527	126.4	WB	32.00
DRB1_0405	365	GDGFNDLTADVHDH	DGFNDLTAD	0.5523	126.9	WB	32.00
DRB1_0405	257	PMPPIIAVSSLLRSHA	PIIAVSSLL	0.5512	128.5	WB	32.00
DRB1_0405	556	KQSRDRLKMIQRLLR	RLKMIQRLL	0.5487	132.0	WB	32.00
DRB1_0405	102	ATVVITVVSYSQAQPS	VVITVVSYS	0.5465	135.3	WB	32.00
DRB1_0405	321	VSLGSELSVVNDPNL	GVSELSVVND	0.5436	139.5	WB	32.00
DRB1_0405	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.5433	140.0	WB	32.00
DRB1_0405	108	VVSYSQAQPSARLVLA	VSYSQAQPSA	0.5432	140.1	WB	32.00
DRB1_0405	417	AVGDNFVWAYQRSEA	FVWAYQRSE	0.5415	142.8	WB	32.00
DRB1_0405	258	MPIIAVSSLLRSHAV	PIIAVSSLL	0.5402	144.8	WB	32.00
DRB1_0405	545	RFVDDISFVVSQSQSR	ISFVVSQSQS	0.5386	147.3	WB	32.00
DRB1_0405	198	AVLVVSDTSQEFTEP	LVVSDTSQE	0.5385	147.4	WB	32.00
DRB1_0405	400	TAHWAEIGNDVENAI	AHWAEIGND	0.5363	151.0	WB	32.00

DRB1_0405	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.5359	151.6	WB	32.00
DRB1_0405	363	VLGDGFNDLTADVDH	DGFNDLTAD	0.5353	152.7	WB	32.00
DRB1_0405	34	VIVELIDHTIAIAKL	ELIDHTIAI	0.5350	153.2	WB	32.00
DRB1_0405	399	PMLHWAEEIGNDVNA	AHWAEIGND	0.5339	154.9	WB	32.00
DRB1_0405	497	GTLSSSVVGLGLFNPL	GMLSSSVVGL	0.5336	155.4	WB	32.00
DRB1_0405	277	KELNEESNFPAIVKF	NEESNFPAI	0.5334	155.7	WB	32.00
DRB1_0405	76	GLLKQKKSQLLNSLL	KSQLLNSLL	0.5330	156.4	WB	32.00
DRB1_0405	196	ADAVLVVSDTSQEFT	VLVVSDTSQ	0.5316	158.8	WB	32.00
DRB1_0405	36	VELIDHTIAIAKLNE	LIDHTIAIA	0.5312	159.5	WB	32.00
DRB1_0405	357	TALWQQVLGDGFNDL	ALWQQVLGD	0.5308	160.2	WB	32.00
DRB1_0405	35	IVELIDHTIAIAKLN	LIDHTIAIA	0.5308	160.3	WB	32.00
DRB1_0405	366	DGFNDLTADVDHDLR	FNDLTADV	0.5295	162.5	WB	32.00
DRB1_0405	254	ARVPMPPIIAVSSLLR	MPIIAVSSL	0.5280	165.1	WB	32.00
DRB1_0405	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.5274	166.2	WB	32.00
DRB1_0405	33	GVIVELIDHTIAIAK	ELIDHTIAI	0.5269	167.2	WB	32.00
DRB1_0405	460	TDFGRLKALGRMESK	FGRLKALGR	0.5267	167.5	WB	32.00
DRB1_0405	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.5256	169.5	WB	32.00
DRB1_0405	398	DPTAHWAEIGNDVEN	AHWAEIGND	0.5254	169.9	WB	32.00
DRB1_0405	87	NSLLNLPAAARVGDE	LLNLPAAARV	0.5250	170.6	WB	32.00
DRB1_0405	276	DKELNEESNFPAIVK	NEESNFPAI	0.5247	171.2	WB	32.00
DRB1_0405	526	EDKQNRLLRVRSEAK	NRLLRVRSE	0.5244	171.7	WB	32.00
DRB1_0405	476	LRRGHKMIIGMRGSY	LRRGHKMII	0.5237	173.1	WB	32.00
DRB1_0405	252	QMRARVPMPPIIAVSSL	MPIIAVSSL	0.5236	173.2	WB	32.00
DRB1_0405	485	GRMGYSYGGVVMIGML	YGGVVMIGM	0.5233	173.7	WB	32.00
DRB1_0405	37	ELIDHTIAIAKLNER	LIDHTIAIA	0.5227	174.8	WB	32.00
DRB1_0405	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.5227	174.9	WB	32.00
DRB1_0405	459	GTDFGRLKALGRMES	FGRLKALGR	0.5224	175.5	WB	32.00
DRB1_0405	199	VLVVSDTSQEFTEPE	LVVSDTSQE	0.5203	179.6	WB	32.00
DRB1_0405	475	PLRRGHKMIIGMRGS	LRRGHKMII	0.5201	180.0	WB	32.00
DRB1_0405	278	ELNEESNFPAIVKFL	NEESNFPAI	0.5163	187.4	WB	32.00
DRB1_0405	253	RARVPMPPIIAVSSLL	MPIIAVSSL	0.5158	188.4	WB	32.00
DRB1_0405	423	VWAYQRSEALADDVA	WAYQRSEAL	0.5155	189.0	WB	32.00
DRB1_0405	32	VGIVELIDHTIAIA	GVIVELIDH	0.5144	191.3	WB	32.00
DRB1_0405	195	EADAVLVVSDTSQEF	VLVVSDTSQ	0.5144	191.3	WB	32.00
DRB1_0405	318	QLAVSLGSELSVND	LAVSLGSEL	0.5099	200.9	WB	32.00
DRB1_0405	606	IRELQRQLGILSQVN	LQRQLGILS	0.5099	200.9	WB	32.00
DRB1_0405	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.5093	202.3	WB	32.00
DRB1_0405	461	DFGRLKALGRMESKP	GRLKALGRM	0.5084	204.2	WB	32.00
DRB1_0405	15	RARKWGDTVTQPDDP	WGDTVTQPD	0.5062	209.2	WB	32.00
DRB1_0405	582	RSLTESLQATIAAAQ	RSLTESLQA	0.5060	209.7	WB	32.00
DRB1_0405	233	KTDLYPRWREIVNAN	PRWREIVNA	0.5050	211.7	WB	32.00
DRB1_0405	542	NVRRFVDDISFVVS	RRFVDDISF	0.5039	214.3	WB	32.00
DRB1_0405	250	HLQRARVPMPPIIAVS	LQRARVPMP	0.5038	214.6	WB	32.00
DRB1_0405	101	EATQRVITVVSYSQ	VVITVVSYS	0.5038	214.7	WB	32.00
DRB1_0405	543	VRRFVDDISFVVSQ	FVDDISFVV	0.5028	216.9	WB	32.00
DRB1_0405	16	ARKWGDTVTQPDDPR	WGDTVTQPD	0.5024	217.9	WB	32.00
DRB1_0405	401	AHWAEIGNDVENAI	AHWAEIGND	0.5022	218.4	WB	32.00
DRB1_0405	362	QVLGDGFNDLTADV	DGFNDLTAD	0.5002	223.2	WB	32.00
DRB1_0405	568	LLRDHYREIAEEITR	LLRDHYREI	0.4998	224.0	WB	32.00
DRB1_0405	612	QLGILSQVNDNLAGL	LILGILSQVN	0.4992	225.5	WB	32.00
DRB1_0405	605	RIRELQRQLGILSQV	LQRQLGILS	0.4991	225.8	WB	32.00
DRB1_0405	320	AVSLGSELSVNDPN	VSLGSELSV	0.4988	226.6	WB	32.00
DRB1_0405	458	MGTDFGRLKALGRME	FGRLKALGR	0.4986	226.9	WB	32.00
DRB1_0405	416	TAVGDNFVWAYQRSE	FVWAYQRSE	0.4986	227.1	WB	32.00
DRB1_0405	319	LAVSLGSELSVNDP	VSLGSELSV	0.4984	227.5	WB	32.00
DRB1_0405	397	CDPTAHWAEIGNDVE	AHWAEIGND	0.4973	230.2	WB	32.00
DRB1_0405	581	TRSLTESLQATIAAA	RSLTESLQA	0.4973	230.3	WB	32.00
DRB1_0405	580	ITRSLTESLQATIAA	RSLTESLQA	0.4941	238.3	WB	32.00
DRB1_0405	579	EITRSLTESLQATIA	RSLTESLQA	0.4940	238.7	WB	32.00
DRB1_0405	251	LQRARVPMPPIIAVSS	RARVPMPPI	0.4939	238.8	WB	32.00
DRB1_0405	567	RLLRDHYREIAEEIT	LLRDHYREI	0.4935	239.8	WB	32.00
DRB1_0405	541	ANVRRFVDDISFVVS	RRFVDDISF	0.4917	244.5	WB	32.00
DRB1_0405	424	WAYQRSEALADDVAR	WAYQRSEAL	0.4917	244.7	WB	32.00
DRB1_0405	551	SFVVSQSRDRLKMI	FVVSQSRD	0.4899	249.4	WB	32.00
DRB1_0405	249	AHLQRARVPMPPIIAV	LQRARVPMP	0.4895	250.5	WB	32.00
DRB1_0405	17	RKWGDTVTQPDDPR	WGDTVTQPD	0.4873	256.5	WB	32.00
DRB1_0405	474	KPLRRGHKMIIGMRG	LRRGHKMII	0.4869	257.6	WB	32.00
DRB1_0405	462	FGRLKALGRMESKPL	GRLKALGRM	0.4860	260.1	WB	32.00
DRB1_0405	531	RLLRVRSEAKANVRR	LLRVRSEAK	0.4857	261.1	WB	32.00
DRB1_0405	194	PEADAVLVVSDTSQE	VLVVSDTSQ	0.4854	261.8	WB	32.00

DRB1_0405	212	PEMWFVRQAHQICPV	FVRQAHQIC	0.4850	262.9	WB	32.00
DRB1_0405	239	RWREIVNANAHLQR	WREIVNANA	0.4847	264.0	WB	32.00
DRB1_0405	317	EQLAVSLGSELSVVN	LAVSLGSEL	0.4841	265.4	WB	32.00
DRB1_0405	279	LNEESNFPAIVKFLS	NEESNFPAI	0.4840	266.0	WB	32.00
DRB1_0405	290	KFLSEQVLSRATERV	FLSEQVLSR	0.4830	268.8	WB	32.00
DRB1_0405	353	AVQQTALWQQVLGDG	ALWQQVLGD	0.4824	270.4	WB	32.00
DRB1_0405	578	EETRSLTESLQATI	ITRSLTESL	0.4817	272.7	WB	32.00
DRB1_0405	275	NDKELNEESNFPAIV	NEESNFPAI	0.4816	272.9	WB	32.00
DRB1_0405	261	IAVSSLLRSHAVTLN	LLRSHAVTL	0.4814	273.5	WB	32.00
DRB1_0405	440	FADAGLDSVLSAELS	AGLDSVLSA	0.4809	275.1	WB	32.00
DRB1_0405	211	EPEMWFVRQAHQICP	PEMWFVRQA	0.4808	275.2	WB	32.00
DRB1_0405	328	SVVNDPNLRDRLASD	VVNDPNLRD	0.4806	275.8	WB	32.00
DRB1_0405	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.4797	278.6	WB	32.00
DRB1_0405	31	RVGVIVELIDHTIAI	GVIVELIDH	0.4788	281.3	WB	32.00
DRB1_0405	14	KRARKWGDTVTQPDD	WGDTVTQPD	0.4787	281.7	WB	32.00
DRB1_0405	259	PIIAVSSLLRSHAVT	PIIAVSSLL	0.4780	283.7	WB	32.00
DRB1_0405	163	SPLLRGGGLAFIDTPG	GLAFIDTPG	0.4752	292.4	WB	50.00
DRB1_0405	540	KANVRRFVDDISFVV	RRFVDDISF	0.4742	295.5	WB	50.00
DRB1_0405	439	SFADAGLDSVLSAEL	FADAGLDSV	0.4712	305.2	WB	50.00
DRB1_0405	100	DEATVVITVVSYSAQ	VVITVVSYS	0.4705	307.6	WB	50.00
DRB1_0405	248	AAHLQRRARVPMP IIA	LQRRARVMP	0.4703	308.2	WB	50.00
DRB1_0405	583	SLTESLQATIAAAQV	ESLQATIAA	0.4676	317.5	WB	50.00
DRB1_0405	484	IGMRSLQGGVVMIGM	YGGVVMIGM	0.4674	318.2	WB	50.00
DRB1_0405	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.4671	319.1	WB	50.00
DRB1_0405	613	LGILSQVNDNLAGLE	LGILSQVND	0.4665	321.4	WB	50.00
DRB1_0405	477	RRGHKMIIGMRGSYG	HKMIIGMRG	0.4661	322.5	WB	50.00
DRB1_0405	358	ALWQQVLGDGFNDLT	ALWQQVLGD	0.4657	324.1	WB	50.00
DRB1_0405	210	TEPEMWFVRQAHQIC	PEMWFVRQA	0.4654	325.2	WB	50.00
DRB1_0405	604	NRIRELQRQLGILSQ	RIRELQRQL	0.4653	325.4	WB	50.00
DRB1_0405	70	VRVVIAGLLKQGKSQ	VIAGLLKQG	0.4650	326.6	WB	50.00
DRB1_0405	478	RGHKMIIGMRGSYGG	KMIIGMRGS	0.4610	341.1	WB	50.00
DRB1_0405	584	LTESLQATIAAAQVA	ESLQATIAA	0.4603	343.4	WB	50.00
DRB1_0405	473	SKPLRRGHKMIIGMR	LRRGHKMI I	0.4601	344.3	WB	50.00
DRB1_0405	280	NEESNFPAIVKFLSE	FPAIVKFLS	0.4585	350.3	WB	50.00
DRB1_0405	441	ADAGLDSVLSAELSP	GLDSVLSAE	0.4563	359.0	WB	50.00
DRB1_0405	69	QKRVVIAGLLKQGKS	VVIAGLLKQ	0.4553	362.5	WB	50.00
DRB1_0405	555	SKQSRDRLKMIQRLL	RLKMIQRLL	0.4553	362.6	WB	50.00
DRB1_0405	375	VDHDLRTRFRVTED	RTRFRVTED	0.4542	367.0	WB	50.00
DRB1_0405	260	IIAVSSLLRSHAVTL	IAVSSLLRS	0.4540	367.9	WB	50.00
DRB1_0405	75	AGLLKQGKSQLLNSL	LKQGKSQLL	0.4539	368.4	WB	50.00
DRB1_0405	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.4536	369.4	WB	50.00
DRB1_0405	463	GRLKALGRMESKPLR	GRLKALGRM	0.4536	369.6	WB	50.00
DRB1_0405	282	ESNFPAIVKFLSEQV	IVKFLSEQV	0.4534	370.2	WB	50.00
DRB1_0405	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.4507	381.3	WB	50.00
DRB1_0405	457	VMGTDGFRLLKALGRM	FGRLKALGR	0.4502	383.1	WB	50.00
DRB1_0405	562	LKMIQRLLRDHYREI	MIQRLLRDH	0.4489	388.7	WB	50.00
DRB1_0405	352	QAVQQTALWQQVLGD	ALWQQVLGD	0.4487	389.4	WB	50.00
DRB1_0405	517	LILGRMAYKEDKQNR	LILGRMAYK	0.4483	391.4	WB	50.00
DRB1_0405	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.4475	394.6	WB	50.00
DRB1_0405	577	AEETRSLTESLQAT	ITRSLTESL	0.4468	397.7	WB	50.00
DRB1_0405	29	PRRVGVIVELIDHTI	GVIVELIDH	0.4460	401.3	WB	50.00
DRB1_0405	438	RSFADAGLDSVLSAE	DAGLDSVLS	0.4455	403.1	WB	50.00
DRB1_0405	516	GLILGRMAYKEDKQN	LILGRMAYK	0.4454	403.8	WB	50.00
DRB1_0405	569	LRDHYREIAEEI TRS	HYREIAEEI	0.4451	405.1	WB	50.00
DRB1_0405	603	DNRIRELQRQLGILS	RIRELQRQL	0.4451	405.1	WB	50.00
DRB1_0405	213	EMWFVRQAHQICPVG	WFVRQAHQI	0.4440	410.0	WB	50.00
DRB1_0405	109	VSYSAQPSARLVLAA	VSYSAQPSA	0.4435	411.9	WB	50.00
DRB1_0405	442	DAGLDSVLSAELSPH	GLDSVLSAE	0.4428	415.0	WB	50.00
DRB1_0405	71	RVVIAGLLKQGKSQ	VVIAGLLKQ	0.4424	417.1	WB	50.00
DRB1_0405	72	VVIAGLLKQGKSQ	VVIAGLLKQ	0.4413	422.0	WB	50.00
DRB1_0405	68	PQVRVVIAGLLKQGK	RVVIAGLLK	0.4383	435.9	WB	50.00
DRB1_0405	382	RFRMTVTEDAERQIDS	FRTVTEDAE	0.4371	441.7	WB	50.00
DRB1_0405	479	GHKTIIGMRGSYGGV	KMIIGMRGS	0.4369	442.3	WB	50.00
DRB1_0405	525	KEDKQNRLLRVRSEA	NLLRVRSE	0.4358	447.9	WB	50.00
DRB1_0405	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.4344	454.6	WB	50.00
DRB1_0405	566	QRLLRDHYREIAEEI	LLRDHYREI	0.4344	454.8	WB	50.00
DRB1_0405	247	NAAHLQRRARVPMP I I	LQRRARVMP	0.4343	455.3	WB	50.00
DRB1_0405	99	DDEATVVITVVSYS	VVITVVSYS	0.4334	459.6	WB	50.00
DRB1_0405	30	RRVGIVELIDHTIA	GVIVELIDH	0.4331	461.1	WB	50.00
DRB1_0405	570	RDHYREIAEEITRSL	HYREIAEEI	0.4309	472.3	WB	50.00

DRB1_0405	480	HKMIIGMRGSYGGVV	IIGMRGSYG	0.4301	476.2	WB	50.00
DRB1_0405	576	IAEEITRSLTESLQA	ITRSLTESL	0.4297	478.3	WB	50.00
DRB1_0405	28	DPRRVGVIVELIDHT	GVIVELIDH	0.4293	480.4	WB	50.00
DRB1_0405	162	PSLLRGGLAFIDTP	LLRGGLAFI	0.4287	483.7	WB	50.00
DRB1_0405	563	KMIQRLLRDHYREIA	MIQRLLRDH	0.4273	490.8	WB	50.00
DRB1_0405	585	TESLQATIAAAQVAE	SLQATIAAA	0.4244	506.6		50.00
DRB1_0405	472	ESKPLRRGHKMIIGM	LRRGHKMI I	0.4233	512.5		50.00
DRB1_0405	361	QQVLGDGFNDLTADV	DGFNDLTAD	0.4197	533.0		50.00
DRB1_0405	214	MWFVRQAHQICPVGA	WFVRQAHQI	0.4183	541.5		50.00
DRB1_0405	281	EESNFPAIVKFLSEQ	FPAIVKFLS	0.4182	541.8		50.00
DRB1_0405	519	LGRMAYKEDKQNRL	MAYKEDKQN	0.4169	549.3		50.00
DRB1_0405	274	LNDKELNEESNFP	ELNEESNFP	0.4168	550.1		50.00
DRB1_0405	27	DDPRRVGVIVELIDH	PRRVGVIVE	0.4165	552.2		50.00
DRB1_0405	621	DNLAGLEPTLTPRAS	NLAGLEPTL	0.4151	560.1		50.00
DRB1_0405	307	GVLGEIRSATEQLAV	EIRSATEQL	0.4147	562.9		50.00
DRB1_0405	425	AYQRSEALADDVARS	YQRSEALAD	0.4146	563.5		50.00
DRB1_0405	67	DPQVRVVIAGLLKQG	QVRVVIAGL	0.4144	564.7		50.00
DRB1_0405	482	MIIGMRGSYGGVMI	IIGMRGSYG	0.4140	566.8		50.00
DRB1_0405	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.4133	571.4		50.00
DRB1_0405	38	LIDHTIAIAKLNERG	LIDHTIAIA	0.4133	571.4		50.00
DRB1_0405	58	LTRARQRITDPQVRV	RQRITDPQV	0.4132	571.9		50.00
DRB1_0405	622	NLAGLEPTLTPRASL	NLAGLEPTL	0.4128	574.4		50.00
DRB1_0405	13	RQRARKWGDVTVTQPD	WGDTVTQPD	0.4127	575.2		50.00
DRB1_0405	565	IKRLLLRDHYREIAEE	LLRDHYREI	0.4123	577.4		50.00
DRB1_0405	481	KMIIGMRGSYGGVMI	IIGMRGSYG	0.4101	591.6		50.00
DRB1_0405	73	VIAGLLKQKGSQLLN	GLLKQKGSQ	0.4091	597.9		50.00
DRB1_0405	308	VLGEIRSATEQLAVS	EIRSATEQL	0.4091	598.0		50.00
DRB1_0405	59	TRARQRITDPQVRVV	RQRITDPQV	0.4087	600.3		50.00
DRB1_0405	74	IAGLLKQKGSQLLNS	GLLKQKGSQ	0.4082	603.8		50.00
DRB1_0405	437	ARSFADAGLDSVLSA	DAGLDSVLS	0.4080	605.1		50.00
DRB1_0405	539	AKANVRRFVDDISFV	RRFVDDISF	0.4077	607.3		50.00
DRB1_0405	232	TKTDLYPRWREIVNA	YPRWREIVN	0.4073	609.7		50.00
DRB1_0405	61	ARQRITDPQVRVVIA	RQRITDPQV	0.4066	614.1		50.00
DRB1_0405	367	GFNDLTADVHDHLRT	GFNDLTADV	0.4058	619.4		50.00
DRB1_0405	518	ILGRMAYKEDKQNRL	MAYKEDKQN	0.4057	620.2		50.00
DRB1_0405	620	NLAGLEPTLTPRASL	NLAGLEPTL	0.4045	628.7		50.00
DRB1_0405	360	WQVVLGDGFNDLTAD	DGFNDLTAD	0.4045	628.7		50.00
DRB1_0405	60	RARQRITDPQVRVVI	RQRITDPQV	0.4044	629.3		50.00
DRB1_0405	564	MIQRLLRDHYREIAE	LLRDHYREI	0.4043	629.6		50.00
DRB1_0405	483	IIGMRGSYGGVVMIG	GSYGGVMI	0.4039	632.2		50.00
DRB1_0405	62	RQRITDPQVRVVIAG	RQRITDPQV	0.4038	632.9		50.00
DRB1_0405	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.4030	639.0		50.00
DRB1_0405	309	LGEIRSATEQLAVSL	EIRSATEQL	0.4028	640.3		50.00
DRB1_0405	18	KWGDVTVTQPDPRRV	WGDTVTQPD	0.4015	649.3		50.00
DRB1_0405	209	FTEPEMWFVRQAHQI	PEMWFVRQA	0.4014	650.1		50.00
DRB1_0405	152	REVLRVEVGAPSPLL	LRVEVGAPS	0.4013	650.2		50.00
DRB1_0405	153	EVLRVEVGAPSPLLR	LRVEVGAPS	0.4013	650.7		50.00
DRB1_0405	443	AGLDSVLSAELSPHV	GLDSVLSAE	0.4012	651.0		50.00
DRB1_0405	402	HWAEIGNDVENAIAT	HWAEIGNDV	0.4009	653.2		50.00
DRB1_0405	291	FLQEQVLSRATERVR	FLSQEQLSR	0.4005	656.2		50.00
DRB1_0405	221	HQICPVGAVVATKTD	GAVVATKTD	0.3999	660.4		50.00
DRB1_0405	571	DHYREIAEEITRSLT	YREIAEEIT	0.3996	662.6		50.00
DRB1_0405	66	TDPQVRVVIAGLLKQ	QVRVVIAGL	0.3995	663.2		50.00
DRB1_0405	586	ESLQATIAAAQVAET	SLQATIAAA	0.3992	665.2		50.00
DRB1_0405	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.3972	680.3		50.00
DRB1_0405	306	AGVLGEIRSATEQLA	LGEIRSATE	0.3970	681.5		50.00
DRB1_0405	602	RDNRIRELQRQLGIL	RIRELQRQL	0.3964	685.6		50.00
DRB1_0405	150	GGREVLRVEVGAPSP	VLRVEVGAP	0.3961	688.2		50.00
DRB1_0405	0	MVPAGLCAYRDLRRK	PAGLCAYRD	0.3959	690.0		50.00
DRB1_0405	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.3957	690.9		50.00
DRB1_0405	88	SLLNLPAARVGDDEA	LLNLPAARV	0.3954	693.6		50.00
DRB1_0405	314	SATEQLAVSLGSELS	LAVSLGSEL	0.3945	699.9		50.00
DRB1_0405	1	VPAGLCAYRDLRRKR	CAYRDLRRK	0.3942	702.8		50.00
DRB1_0405	520	GRMAYKEDKQNRLLR	MAYKEDKQN	0.3941	703.2		50.00
DRB1_0405	521	RMAYKEDKQNRLLRV	MAYKEDKQN	0.3938	705.8		50.00
DRB1_0405	151	GREVLRVEVGAPSP	LRVEVGAPS	0.3911	726.2		50.00
DRB1_0405	161	APSLLRGGLAFIDT	PLLRGGLAF	0.3894	740.0		50.00
DRB1_0405	98	GDDEATVVITVVSYS	VVITVVSYS	0.3876	754.7		50.00
DRB1_0405	436	VARSFADAGLDSVLS	FADAGLDSV	0.3865	763.7		50.00
DRB1_0405	515	AGLILGRMAYKEDKQ	LILGRMAYK	0.3864	764.5		50.00

DRB1_0405	351	QQAVQQTALWQQVLG	VQQTALWQQ	0.3862	765.6	50.00
DRB1_0405	466	KALGRMESKPLRRGH	LGRMESKPL	0.3858	769.3	50.00
DRB1_0405	614	GILSQVNDNLAGLEP	GILSQVNDN	0.3850	775.7	50.00
DRB1_0405	2	PAGLCAYRDLRRKRA	CAYRDLRRK	0.3846	779.3	50.00
DRB1_0405	57	RLTRARQRITDPQVR	QRITDPQV	0.3841	783.2	50.00
DRB1_0405	464	RLKALGRMESKPLRR	LGRMESKPL	0.3840	784.2	50.00
DRB1_0405	444	GLDSVLSAELSPHVM	SVLSAELSP	0.3809	811.4	50.00
DRB1_0405	467	ALGRMESKPLRRGHK	GRMESKPLR	0.3794	824.5	50.00
DRB1_0405	154	VLRVEVGAPSPLLRG	LRVEVGAPS	0.3793	825.5	50.00
DRB1_0405	514	GAGLILGRMAYKEDK	LILGRMAYK	0.3792	826.5	50.00
DRB1_0405	623	LAGLEPTLTPRASLG	AGLEPTLTP	0.3787	830.8	50.00
DRB1_0405	218	RQAHQICPVGAVVAT	HQICPVGAV	0.3782	835.2	50.00
DRB1_0405	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.3779	838.1	50.00
DRB1_0405	115	PSARLVLAAGPDGTT	SARLVLAAG	0.3769	846.8	50.00
DRB1_0405	465	LKALGRMESKPLRRG	LGRMESKPL	0.3748	866.3	50.00
DRB1_0405	575	EIAEEITRSLTESLQ	ITRSLTESL	0.3724	889.6	50.00
DRB1_0405	468	LGRMESKPLRRGHKM	GRMESKPLR	0.3712	901.3	50.00
DRB1_0405	219	QAHQICPVGAVVATK	HQICPVGAV	0.3698	914.3	50.00
DRB1_0405	313	RSATEQLAVSLGSEL	LAVSLGSEL	0.3690	923.1	50.00
DRB1_0405	56	QRLTRARQRITDPQV	LTRARQRIT	0.3682	930.4	50.00
DRB1_0405	524	YKEDKQNRLLRVSE	NRLLRVSE	0.3682	930.4	50.00
DRB1_0405	114	QPSARLVLAAGPDGT	SARLVLAAG	0.3680	933.1	50.00
DRB1_0405	113	AQPSARLVLAAGPDG	SARLVLAAG	0.3667	946.4	50.00
DRB1_0405	182	GPHLSATLGLLPEA	HLSATLGLL	0.3654	959.7	50.00
DRB1_0405	65	ITDPQVRVVIAGLLK	QVRVVIAGL	0.3649	964.5	50.00
DRB1_0405	601	ERDNRIRELQRQLGI	RIRELQRQL	0.3640	974.3	50.00
DRB1_0405	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.3638	976.5	50.00
DRB1_0405	396	SCDPTAHWAEIGNDV	AHWAEIGND	0.3634	979.9	50.00
DRB1_0405	471	MESKPLRRGHKMIIG	LRRGHKMI I	0.3631	983.8	50.00
DRB1_0405	184	PHLSATLGLLPEADA	LSATLGLLP	0.3629	985.8	50.00
DRB1_0405	311	EIRSATEQLAVSLGS	EIRSATEQL	0.3623	991.8	50.00
DRB1_0405	208	EFTEPEMWFVRQAHQ	PEMWFVRQA	0.3623	992.5	50.00
DRB1_0405	224	CPVGAVVATKTDLYP	GAVVATKTD	0.3619	996.5	50.00
DRB1_0405	456	HVMGTDGRLKALGR	FGRLKALGR	0.3607	1009.2	50.00
DRB1_0405	572	HYREIAEEITRSLTE	YREIAEEIT	0.3606	1011.0	50.00
DRB1_0405	149	ARGREVLRVVEVGAPS	VLRVEVGAP	0.3604	1013.0	50.00
DRB1_0405	116	SARLVLAAGPDGTTA	SARLVLAAG	0.3603	1013.9	50.00
DRB1_0405	619	VNDNLAGLEPTLTPR	NLAGLEPTL	0.3587	1031.9	50.00
DRB1_0405	305	RAGVLGEIRSATEQL	LGEIRSATE	0.3559	1062.9	50.00
DRB1_0405	183	QPHLSATLGLLPEAD	LSATLGLLP	0.3558	1063.9	50.00
DRB1_0405	26	PDDPRRVGVIVELID	PRRVGVIVE	0.3551	1072.8	50.00
DRB1_0405	220	AHQICPVGAVVATKT	HQICPVGAV	0.3544	1080.0	50.00
DRB1_0405	538	EAKANVRRFVDDISF	RRFVDDISF	0.3542	1082.6	50.00
DRB1_0405	185	HLSATLGLLPEADAV	LSATLGLLP	0.3533	1093.6	50.00
DRB1_0405	470	RMESKPLRRGHKMI I	LRRGHKMI I	0.3530	1096.7	50.00
DRB1_0405	64	RITDPQVRVVIAGLL	QVRVVIAGL	0.3529	1098.5	50.00
DRB1_0405	225	PVGAVVATKTDLYPR	GAVVATKTD	0.3526	1101.3	50.00
DRB1_0405	3	AGLCAYRDLRRKRAR	CAYRDLRRK	0.3514	1116.5	50.00
DRB1_0405	217	VRQAHQICPVGAVVA	HQICPVGAV	0.3512	1118.8	50.00
DRB1_0405	223	ICPVGAVVATKTDLY	GAVVATKTD	0.3509	1122.7	50.00
DRB1_0405	222	QICPVGAVVATKTDL	GAVVATKTD	0.3491	1143.8	50.00
DRB1_0405	426	YQRSEALADDVARSF	YQRSEALAD	0.3482	1155.1	50.00
DRB1_0405	160	GAPSPLLRGGLAFID	PLLRGGLAF	0.3482	1155.9	50.00
DRB1_0405	403	WAEIGNDVENAIATA	WAEIGNDVE	0.3476	1162.7	50.00
DRB1_0405	240	WREIVNANAHLQRA	WREIVNANA	0.3476	1162.8	50.00
DRB1_0405	181	LGQPHLSATLGLLPE	PHLSATLGL	0.3475	1164.4	50.00
DRB1_0405	574	REIAEEITRSLTESL	ITRSLTESL	0.3466	1175.7	50.00
DRB1_0405	186	LSATLGLLPEADAVL	ATLGLLPEA	0.3463	1180.1	50.00
DRB1_0405	226	VGAVVATKTDLYPRW	GAVVATKTD	0.3452	1194.1	50.00
DRB1_0405	128	TTAAVDIPVDDISTD	TAAVDIPVD	0.3422	1233.5	50.00
DRB1_0405	310	GEIRSATEQLAVSLG	EIRSATEQL	0.3421	1234.2	50.00
DRB1_0405	350	DQAVSQQTALWQQVL	AVQQTALWQ	0.3410	1248.9	50.00
DRB1_0405	435	ADQARSFQADGLDSVL	FADAGLDSV	0.3401	1261.1	50.00
DRB1_0405	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.3399	1264.7	50.00
DRB1_0405	227	GAVVATKTDLYPRWR	GAVVATKTD	0.3377	1293.9	50.00
DRB1_0405	624	AGLEPTLTPRASLGR	GLEPTLTPR	0.3363	1315.0	50.00
DRB1_0405	53	DLVQRLTRARQRITD	LVQRLTRAR	0.3329	1363.8	50.00
DRB1_0405	312	IRSATEQLAVSLGSE	EQLAVSLGS	0.3328	1365.4	50.00
DRB1_0405	513	VGAGLILGRMAYKED	LILGRMAYK	0.3318	1379.2	50.00
DRB1_0405	4	GLCAYRDLRRKRARK	CAYRDLRRK	0.3316	1383.5	50.00

DRB1_0405	180	GLGQPHLSATLGLLP	QPHLSATLG	0.3314	1386.2	50.00
DRB1_0405	187	SATLGLLPEADAVLV	LGLLPEADA	0.3313	1387.2	50.00
DRB1_0405	246	ANAAHLQRRVPMPI	LQRARVMP	0.3308	1395.1	50.00
DRB1_0405	52	GDLVQRLTRARQRIT	LVQRLTRAR	0.3297	1411.2	50.00
DRB1_0405	129	TAAVDIPVDDISTDV	IPVDDISTD	0.3293	1418.0	50.00
DRB1_0405	188	ATLGLLPEADAVLVV	LGLLPEADA	0.3291	1421.1	50.00
DRB1_0405	131	AVDIPVDDISTDVRR	IPVDDISTD	0.3290	1423.1	50.00
DRB1_0405	207	QEFTEPEMWFVRQA	PEMWFVRQA	0.3288	1424.8	50.00
DRB1_0405	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.3288	1425.3	50.00
DRB1_0405	267	LRSHAVTLNDKELNE	RSHAVTLND	0.3288	1425.9	50.00
DRB1_0405	132	RDIPVDDISTDVRR	IPVDDISTD	0.3274	1446.6	50.00
DRB1_0405	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.3258	1473.1	50.00
DRB1_0405	445	LDSVLSAELSPHVMG	SVLSAELSP	0.3251	1484.3	50.00
DRB1_0405	434	DDVARSFADAGLDSV	VARSFADAG	0.3236	1508.4	50.00
DRB1_0405	329	VVNDPNLRDRLASDL	VVNDPNLRD	0.3231	1516.1	50.00
DRB1_0405	54	LVQRLTRARQRITDP	LVQRLTRAR	0.3231	1516.2	50.00
DRB1_0405	273	TLNDKELNEESNFPA	ELNEESNFP	0.3229	1519.5	50.00
DRB1_0405	130	AAVDIPVDDISTDVR	IPVDDISTD	0.3228	1520.4	50.00
DRB1_0405	469	GRMESKPLRRGHKMI	GRMESKPLR	0.3223	1530.1	50.00
DRB1_0405	600	TERDNRIRELQRQLG	RIRELQRQL	0.3196	1574.1	50.00
DRB1_0405	304	VRAGVLGEIRSATEQ	GVLGEIRSA	0.3187	1589.8	50.00
DRB1_0405	447	SVLSAELSPHVMGTD	SVLSAELSP	0.3181	1599.7	50.00
DRB1_0405	112	SAQPSARLVLAAGPD	SARLVLAAG	0.3181	1600.3	50.00
DRB1_0405	133	DIPVDDISTDVRRAP	IPVDDISTD	0.3167	1625.1	50.00
DRB1_0405	349	EAQQAVQQTALWQQV	AVQQTALWQ	0.3165	1627.7	50.00
DRB1_0405	63	QRITDPQVRVVIAGL	RITDPQVRV	0.3146	1662.0	50.00
DRB1_0405	155	LRVEVGAPSPLLRGG	LRVEVGAPS	0.3134	1683.4	50.00
DRB1_0405	206	SQEFTEPEMWFVRQA	PEMWFVRQA	0.3128	1695.0	50.00
DRB1_0405	618	QVNDNLAGLEPTLTP	NLAGLEPTL	0.3119	1711.0	50.00
DRB1_0405	446	FRTVLSAELSPHVMGT	SVLSAELSP	0.3094	1759.3	50.00
DRB1_0405	383	FRTVTEDAERQIDSC	FRTVTEDAE	0.3091	1764.4	50.00
DRB1_0405	148	HAGGREVLRVEVGAP	VLRVEVGAP	0.3085	1776.5	50.00
DRB1_0405	189	TLGLLPEADAVLVVS	LGLLPEADA	0.3083	1779.6	50.00
DRB1_0405	19	WGDTVTQPDDPRRVG	WGDTVTQPD	0.3080	1784.5	50.00
DRB1_0405	127	GTTAAVDIPVDDIST	TAAVDIPVD	0.3073	1799.5	50.00
DRB1_0405	368	FNDLTADVDHDLRTR	FNDLTADVD	0.3054	1835.2	50.00
DRB1_0405	303	RVRAGVLGEIRSATE	GVEIRSATE	0.3047	1850.0	50.00
DRB1_0405	573	YREIAEEITRSLTES	YREIAEEIT	0.3045	1854.8	50.00
DRB1_0405	587	SLQATIAAAQVAETE	SLQATIAAA	0.3036	1872.1	50.00
DRB1_0405	89	LLNLPAARVGDDEAT	LLNLPAARV	0.3033	1877.5	50.00
DRB1_0405	190	LGLLPEADAVLVVSD	LGLLPEADA	0.3020	1905.5	50.00
DRB1_0405	126	DGTTAAVDIPVDDIS	TAAVDIPVD	0.3010	1925.1	50.00
DRB1_0405	506	EFNPLSVGAGLILG	FNPLSVGAG	0.3007	1932.0	50.00
DRB1_0405	599	ETERDNRIRELQRQL	RIRELQRQL	0.3003	1939.9	50.00
DRB1_0405	404	AEIGNDVENAIATAV	IGNDVENAI	0.2998	1950.2	50.00
DRB1_0405	97	VGDEATVVITVVSYS	TVVITVVSYS	0.2993	1961.5	50.00
DRB1_0405	348	REAQQAVQQTALWQQ	AQQAVQQTA	0.2979	1991.4	50.00
DRB1_0405	55	VQRLTRARQRITDPQ	LTRARQRIT	0.2974	2002.1	50.00
DRB1_0405	405	EIGNDVENAIATAVG	IGNDVENAI	0.2970	2011.0	50.00
DRB1_0405	374	DVDHDLRTRFRVTE	DLRTRFRTV	0.2968	2015.5	50.00
DRB1_0405	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.2963	2027.1	50.00
DRB1_0405	178	VGGLGQPHLSATLGL	GGLGQPHLS	0.2947	2060.7	50.00
DRB1_0405	42	TIAIAKLNERGDLVQ	IAKLNERGD	0.2942	2072.1	50.00
DRB1_0405	176	PGVGGLGQPHLSATL	GGLGQPHLS	0.2941	2075.2	50.00
DRB1_0405	43	IAIAKLNERGDLVQR	KLNERGDLV	0.2932	2094.5	50.00
DRB1_0405	554	ISKQSRDRCLKMIQRL	DRLKMIQRL	0.2924	2113.8	50.00
DRB1_0405	406	IGNDVENAIATAVGD	NDVENAIAT	0.2924	2114.1	50.00
DRB1_0405	47	KLNERGDLVQRLTRA	KLNERGDLV	0.2920	2121.5	50.00
DRB1_0405	625	GLEPTLTPRASLGRA	LEPTLTPRA	0.2910	2145.5	50.00
DRB1_0405	512	SVGAGLILGRMAYKE	LILGRMAYK	0.2906	2154.8	50.00
DRB1_0405	245	NANAAHLQRRVPMPI	LQRARVMP	0.2888	2196.7	50.00
DRB1_0405	50	ERKDLVQRLTRARQR	LVQRLTRAR	0.2874	2230.4	50.00
DRB1_0405	45	IAGLNERGDLVQRLT	KLNERGDLV	0.2870	2240.2	50.00
DRB1_0405	41	HTIAIAKLNERGDLV	IAIAKLNER	0.2869	2242.9	50.00
DRB1_0405	111	YSAQPSARLVLAAGP	YSAQPSARL	0.2863	2258.8	50.00
DRB1_0405	125	PDGTTAAVDIPVDDI	TAAVDIPVD	0.2861	2263.6	50.00
DRB1_0405	177	GVGGLGQPHLSATLG	GGLGQPHLS	0.2860	2265.6	50.00
DRB1_0405	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.2858	2270.3	50.00
DRB1_0405	49	NERGDLVQRLTRARQ	RGDLVQRLT	0.2852	2285.1	50.00
DRB1_0405	44	AIAKLNERGDLVQRL	KLNERGDLV	0.2845	2301.6	50.00

DRB1_0405	134	IPVDDISTDVERRAPH	IPVDDISTD	0.2831	2336.7	50.00
DRB1_0405	25	QPDDPRRVGVIVELI	PRRVGVIVE	0.2817	2373.6	50.00
DRB1_0405	533	LRVRSEAKANVRRFV	LRVRSEAKA	0.2816	2376.3	50.00
DRB1_0405	48	LNGRDLVQRLTRAR	RGDLVQRLT	0.2815	2377.9	50.00
DRB1_0405	179	GGLGQPHLSATLGLL	PHLSATLGL	0.2813	2383.5	50.00
DRB1_0405	175	TPGVGGLGQPHLSAT	VGGLGQPHL	0.2812	2385.8	50.00
DRB1_0405	46	AKLNERGDLVQRLTR	KLNERGDLV	0.2805	2404.0	50.00
DRB1_0405	333	PNLRDRLASDLERRK	NLRDRLASD	0.2802	2410.8	50.00
DRB1_0405	395	DSCDPTAHWAEIGND	AHWAEIGND	0.2773	2488.0	50.00
DRB1_0405	268	RSHAVTLNDKELNEE	RSHAVTLND	0.2766	2506.7	50.00
DRB1_0405	110	YSVAQPSARLVLAAG	YSVAQPSARL	0.2766	2507.1	50.00
DRB1_0405	334	NLRDRLASDLERRKR	NLRDRLASD	0.2749	2552.9	50.00
DRB1_0405	191	GLLPEADAVLVVSDT	LPEADAVLV	0.2748	2556.8	50.00
DRB1_0405	124	GPDGTTAAVDIPVDD	TAAVDIPVD	0.2748	2557.7	50.00
DRB1_0405	5	LCAYRDLRRKRARKW	CAYRDLRRK	0.2719	2639.3	50.00
DRB1_0405	292	LSEQVLSRATERVRA	LSEQVLSRA	0.2710	2662.9	50.00
DRB1_0405	617	SQVNDNLAGLEPTLT	NLAGLEPTL	0.2710	2664.1	50.00
DRB1_0405	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.2699	2696.0	50.00
DRB1_0405	12	RRKRARKWGDVTVQP	RARKWGDTV	0.2696	2703.7	50.00
DRB1_0405	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.2692	2716.7	50.00
DRB1_0405	117	ARLVLAAGPDGTTAA	RLVLAAGPD	0.2680	2753.0	50.00
DRB1_0405	301	TERVRAGVLGEIRSA	RVRAGVLGE	0.2662	2805.0	50.00
DRB1_0405	511	LSVGAGLILGRMAYK	LILGRMAYK	0.2656	2823.4	50.00
DRB1_0405	332	DPNLRDRLASDLERR	NLRDRLASD	0.2652	2837.0	50.00
DRB1_0405	407	GNDVENAIATAVGDN	DVENAIATA	0.2645	2858.2	50.00
DRB1_0405	615	ILSQVNDNLAGLEPT	LSQVNDNLA	0.2639	2876.4	50.00
DRB1_0405	272	VTLNDKELNEESNFP	VTLNDKELN	0.2631	2903.0	50.00
DRB1_0405	174	DTPGVGGLGQPHLSA	GVGGLGQPH	0.2620	2936.9	50.00
DRB1_0405	228	AVVATKTDLYPRWRE	AVVATKTDL	0.2617	2947.4	50.00
DRB1_0405	40	DHTIAIAKLNERNRDL	HTIAIAKLN	0.2615	2952.5	50.00
DRB1_0405	433	ADDVARSFADAGLDS	VARSFADAG	0.2584	3053.2	50.00
DRB1_0405	331	NDPNLRDRLASDLER	NLRDRLASD	0.2572	3092.0	50.00
DRB1_0405	147	PHAGGREVLRVEVGA	GGREVLRVE	0.2560	3134.6	50.00
DRB1_0405	537	SEAKANVRRFVDDIS	NVRRFVDDI	0.2548	3175.4	50.00
DRB1_0405	231	ATKTDLYPRWREIVN	YPRWREIVN	0.2539	3207.2	50.00
DRB1_0405	507	LFNPLSVGAGLILGR	FNPLSVGAG	0.2529	3239.5	50.00
DRB1_0405	448	LVNSAELSPHVMGTDF	NSAELSPHV	0.2519	3276.3	50.00
DRB1_0405	39	IDHTIAIAKLNERNRDL	HTIAIAKLN	0.2510	3306.6	50.00
DRB1_0405	205	TSQEFTEPEMWFVRQ	SQEFTEPEM	0.2504	3330.3	50.00
DRB1_0405	302	ERVRAGVLGEIRSAT	GVLGEIRSA	0.2468	3460.2	50.00
DRB1_0405	347	KREAQQAVQQTALWQ	AQQAVQQT	0.2450	3527.7	50.00
DRB1_0405	449	LSAELSPHVMGTDFG	LSAELSPHV	0.2446	3544.8	50.00
DRB1_0405	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.2439	3572.2	50.00
DRB1_0405	408	GNDVENAIATAVGDNF	DVENAIATA	0.2435	3586.4	50.00
DRB1_0405	123	AGPDGTTAAVDIPVD	TAAVDIPVD	0.2429	3612.6	50.00
DRB1_0405	159	VGAPSPLLRGGLAFI	LLRGGLAFI	0.2412	3675.9	50.00
DRB1_0405	455	PHVMGTDFGRLKALG	HVMGTDFGR	0.2395	3745.6	50.00
DRB1_0405	523	AYKEDKQNRLLRVRS	YKEDKQNRL	0.2382	3800.2	50.00
DRB1_0405	156	RVEVGAPSPLLRGGL	RVEVGAESP	0.2376	3825.5	50.00
DRB1_0405	96	RVEGDDEATVVITVVS	ATVVITVVS	0.2374	3832.0	50.00
DRB1_0405	204	DTSQEFTEPEMWFVR	SQEFTEPEM	0.2372	3838.8	50.00
DRB1_0405	346	RKREAQQAVQQTALW	EAQQAVQQT	0.2366	3865.3	50.00
DRB1_0405	450	SAELSPHVMGTDFGR	SAELSPHVM	0.2365	3869.9	50.00
DRB1_0405	345	RRKREAQQAVQQTAL	RKREAQQAV	0.2344	3959.3	50.00
DRB1_0405	24	TQPDDPRRVGVIVEL	PRRVGVIVE	0.2341	3970.3	50.00
DRB1_0405	344	ERRKREAQQAVQQT	RKREAQQAV	0.2338	3985.7	50.00
DRB1_0405	11	LRRKRARKWGDVTVQ	RARKWGDTV	0.2336	3995.0	50.00
DRB1_0405	293	SEQVLSRATERVRAG	EQVLSRATE	0.2334	4002.3	50.00
DRB1_0405	270	HAVTLNDKELNEESN	HAVTLNDKE	0.2332	4008.1	50.00
DRB1_0405	432	LADDVARSFADAGLD	VARSFADAG	0.2325	4042.0	50.00
DRB1_0405	269	SHAVTLNDKELNEES	VTLNDKELN	0.2312	4099.4	50.00
DRB1_0405	300	ATERSRAGVLGEIRS	RVRAGVLGE	0.2303	4138.6	50.00
DRB1_0405	203	SDTSQEFTEPEMWFV	SQEFTEPEM	0.2293	4183.8	50.00
DRB1_0405	386	VTEDAERQIDSCDPT	DAERQIDSC	0.2276	4262.5	50.00
DRB1_0405	409	DVENAIATAVGDNFV	NAIATAVGD	0.2268	4298.1	50.00
DRB1_0405	294	EQVLSRATERVRAGV	LSRATERVR	0.2263	4319.7	50.00
DRB1_0405	173	IDTPGVGGLGQPHLS	PGVGGLGQP	0.2259	4341.1	50.00
DRB1_0405	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.2257	4350.7	50.00
DRB1_0405	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.2254	4362.7	50.00
DRB1_0405	229	VVATKTDLYPRWREI	VVATKTDLY	0.2254	4362.8	50.00

DRB1_0405	330	VNDPNLRDRRLASDLE	NLRDRRLASD	0.2249	4385.8	50.00
DRB1_0405	6	CAYRDLRRKRARKWG	CAYRDLRRK	0.2236	4449.9	50.00
DRB1_0405	271	AVTLNDKELNEESNF	VTLNDKELN	0.2189	4683.8	50.00
DRB1_0405	510	PLSVGAGLILGRMAY	LSVGAGLIL	0.2180	4726.2	50.00
DRB1_0405	454	SPHVMGTDFGRLKAL	HVMGTDFGR	0.2176	4748.4	50.00
DRB1_0405	414	IATAVGDNFVWAYQR	DNFVWAYQR	0.2174	4755.7	50.00
DRB1_0405	343	LERRKREAQQAVQQT	RKREAQQAV	0.2147	4898.4	50.00
DRB1_0405	335	LRDRLASDLERRKRE	DRLASDLER	0.2140	4935.0	50.00
DRB1_0405	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.2136	4956.6	50.00
DRB1_0405	146	APHAGGREVLRVEVG	GGREVLRVE	0.2124	5021.7	50.00
DRB1_0405	373	ADVDHDLRTRFRFTV	DLRTRFRFTV	0.2118	5055.8	50.00
DRB1_0405	299	RATERVRAGVLGEIR	RVRAGVLGE	0.2115	5071.5	50.00
DRB1_0405	428	RSEALADDVARSFAD	EALADDVAR	0.2111	5095.3	50.00
DRB1_0405	369	NDLTADVVDHDLRTRF	LTADVVDHDL	0.2094	5186.3	50.00
DRB1_0405	430	EALADDVARSFADAG	EALADDVAR	0.2093	5192.9	50.00
DRB1_0405	385	TVTEDAERQIDSCDP	VTEDAERQI	0.2062	5373.4	50.00
DRB1_0405	241	REIVNANAHAHLQARV	EIVNANAHAH	0.2051	5436.9	50.00
DRB1_0405	242	EIVNANAHAHLQARV	EIVNANAHAH	0.2049	5449.6	50.00
DRB1_0405	536	RSEAKANVRRFVDDI	NVRRFVDDI	0.2048	5451.0	50.00
DRB1_0405	453	LSPHVMGTDFGRLKA	HVMGTDFGR	0.2047	5457.3	50.00
DRB1_0405	452	ELSPHVMGTDFGRLK	HVMGTDFGR	0.2041	5491.8	50.00
DRB1_0405	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.2039	5503.4	50.00
DRB1_0405	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.2036	5526.3	50.00
DRB1_0405	387	TEDEAERQIDSCDPTA	RQIDSCDPT	0.2024	5598.4	50.00
DRB1_0405	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.2014	5657.6	50.00
DRB1_0405	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.2009	5685.7	50.00
DRB1_0405	451	AELSPHVMGTDFGRL	SPHVMGTDF	0.2005	5710.9	50.00
DRB1_0405	202	VSDTSQEFTEPEMWF	TSQEFTEPE	0.1986	5834.3	50.00
DRB1_0405	427	QRSEALADDVARSFAD	EALADDVAR	0.1985	5840.1	50.00
DRB1_0405	429	SEALADDVARSFADA	EALADDVAR	0.1953	6042.9	50.00
DRB1_0405	230	VATKTDLYPRWREIV	VATKTDLYP	0.1933	6178.5	50.00
DRB1_0405	588	LQATIAAAQVAETER	LQATIAAAQ	0.1930	6194.5	50.00
DRB1_0405	342	DLERRKREAQQAVQQ	RKREAQQAV	0.1929	6200.2	50.00
DRB1_0405	23	VTQPDDPRRVGVIVE	PRRVGVIVE	0.1925	6229.5	50.00
DRB1_0405	297	LSRATERVRAGVLGE	LSRATERVR	0.1917	6282.5	50.00
DRB1_0405	95	NAVGDDEATVVITV	DEATVVITV	0.1911	6325.0	50.00
DRB1_0405	412	AIATAVGDNFVWAY	NAIATAVGD	0.1908	6342.7	50.00
DRB1_0405	410	VENAIATAVGDNFVW	NAIATAVGD	0.1902	6387.5	50.00
DRB1_0405	413	AIATAVGDNFVWAYQ	AIATAVGDN	0.1891	6461.2	50.00
DRB1_0405	431	ALADDVARSFADAGL	DDVARSFAD	0.1882	6526.1	50.00
DRB1_0405	295	QVLSRATERVRAGVL	LSRATERVR	0.1873	6591.5	50.00
DRB1_0405	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.1870	6607.7	50.00
DRB1_0405	145	RAPHAGGREVLRVEV	GREVLRVEV	0.1869	6614.7	50.00
DRB1_0405	384	RTVTEDAERQIDSCD	VTEDAERQI	0.1868	6625.4	50.00
DRB1_0405	553	VVSKQSRDRCLKMIQR	QSRDRCLKMI	0.1859	6689.9	50.00
DRB1_0405	201	VVSDTSQEFTEPEMW	SQEFTEPEM	0.1854	6724.6	50.00
DRB1_0405	10	DLRRKRARKWGDVT	RARKWGDTV	0.1853	6731.2	50.00
DRB1_0405	298	SRATERVRAGVLGEI	RVRAGVLGE	0.1847	6775.5	50.00
DRB1_0405	535	RSEAKANVRRFVDD	VRSEAKANV	0.1828	6917.9	50.00
DRB1_0405	411	ENAIATAVGDNFVWA	NAIATAVGD	0.1813	7031.6	50.00
DRB1_0405	372	TADVVDHDLRTRFRFTV	DLRTRFRFTV	0.1797	7152.7	50.00
DRB1_0405	598	AETERDNRIRELQRQ	NRIRELQRQ	0.1785	7247.6	50.00
DRB1_0405	336	RDRLASDLERRKREA	DRLASDLER	0.1781	7281.6	50.00
DRB1_0405	94	AARVGDDEATVVITV	RVGDDEATV	0.1773	7341.8	50.00
DRB1_0405	296	VLSRATERVRAGVLG	LSRATERVR	0.1766	7400.2	50.00
DRB1_0405	20	GDTVTPDDPRRVGV	GDTVTPDD	0.1766	7401.9	50.00
DRB1_0405	589	QATIAAAQVAETERD	QATIAAAQV	0.1698	7963.7	50.00
DRB1_0405	157	VEVGAPSPLLRGGLA	VEVGAPSP	0.1674	8175.3	50.00
DRB1_0405	370	DLTADVVDHDLRTRFR	LTADVVDHDL	0.1671	8197.0	50.00
DRB1_0405	243	IVNANAHAHLQARVP	AAHLQARAV	0.1641	8465.4	50.00
DRB1_0405	244	VNANAHAHLQARVPM	AAHLQARAV	0.1639	8487.5	50.00
DRB1_0405	92	LPAAARVGDDEATVVI	RVGDDEATV	0.1611	8747.3	50.00
DRB1_0405	9	DLRRKRARKWGDTV	RARKWGDTV	0.1610	8757.8	50.00
DRB1_0405	93	PAARVGDDEATVVIT	RVGDDEATV	0.1576	9087.9	50.00
DRB1_0405	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.1575	9100.4	50.00
DRB1_0405	139	ISTDVRRAPHAGGRE	TDVRRAPHA	0.1572	9124.8	50.00
DRB1_0405	122	AAGPDGTTAAVDIPV	GPDGTTAAV	0.1570	9141.1	50.00
DRB1_0405	158	EVGAPSPLLRGGLAF	EVGAPSP	0.1567	9177.1	50.00
DRB1_0405	138	DISTDVRRAPHAGGR	TDVRRAPHA	0.1561	9231.4	50.00
DRB1_0405	135	PVDDISTDVRRAPHA	PVDDISTDV	0.1559	9257.9	50.00

DRB1_0405	341	SDLERRKREAQQAVQ	RKREAQQAV	0.1552	9321.5	50.00
DRB1_0405	7	AYRDLRRKRARKWGD	AYRDLRRKR	0.1529	9565.8	50.00
DRB1_0405	140	STDVRRAPHAGGREV	DVRRAPHAG	0.1521	9647.5	50.00
DRB1_0405	90	LNLPAARVGDDEATV	LPAARVGDD	0.1490	9971.0	50.00
DRB1_0405	137	DDISTDVRRAPHAGG	TDVRRAPHA	0.1476	10123.0	50.00
DRB1_0405	371	LTADVHDHLRTRFRT	LTADVHDHL	0.1466	10231.7	50.00
DRB1_0405	91	NLPAARVGDDEATVV	LPAARVGDD	0.1464	10260.1	50.00
DRB1_0405	590	ATIAAAQVAETERDN	IAAAQVAET	0.1445	10474.4	50.00
DRB1_0405	337	DRLASDLERRKREAQ	DRLASDLER	0.1440	10524.9	50.00
DRB1_0405	141	TDVRRAPHAGGREVL	TDVRRAPHA	0.1420	10763.3	50.00
DRB1_0405	8	YRDLRRKRARKWGD	DLRRKRARK	0.1417	10794.5	50.00
DRB1_0405	591	TIAAAQVAETERDNR	IAAAQVAET	0.1353	11567.2	50.00
DRB1_0405	121	LAAGPDGTTAAVDIP	GPDGTTAAV	0.1346	11650.2	50.00
DRB1_0405	136	VDDISTDVRRAPHAG	DISTDVRRRA	0.1338	11751.6	50.00
DRB1_0405	394	IDSCDPTAHWAEIGN	TAHWAEIGN	0.1331	11850.4	50.00
DRB1_0405	340	ASDLERRKREAQQAV	RKREAQQAV	0.1321	11967.8	50.00
DRB1_0405	592	IAAAQVAETERDNR I	IAAAQVAET	0.1307	12155.4	50.00
DRB1_0405	22	TVTQPDDPRRVGVIV	DPRRVGVIV	0.1253	12892.6	50.00
DRB1_0405	393	QIDSCDPTAHWAEIG	QIDSCDPTA	0.1235	13134.7	50.00
DRB1_0405	597	VAETERDNR IRELQR	DNR IRELQR	0.1182	13914.8	50.00
DRB1_0405	338	RLASDLERRKREAQQ	ERRKREAQQ	0.1182	13916.1	50.00
DRB1_0405	144	RRAPHAGGREVLRVE	GGREVLRVE	0.1173	14052.3	50.00
DRB1_0405	120	VLAAGPDGTTAAVDI	GPDGTTAAV	0.1162	14225.3	50.00
DRB1_0405	21	DTVTQPDDPRRVGVI	DTVTQPDDP	0.1108	15078.0	50.00
DRB1_0405	596	QVAETERDNR IRELQ	QVAETERDN	0.1107	15088.7	50.00
DRB1_0405	339	LASDLERRKREAQQA	ERRKREAQQ	0.1104	15142.2	50.00
DRB1_0405	142	DVRRAPHAGGREVLR	DVRRAPHAG	0.1054	15980.8	50.00
DRB1_0405	594	AAQVAETERDNR IRE	QVAETERDN	0.1052	16010.6	50.00
DRB1_0405	595	AQVAETERDNR IREL	AQVAETERD	0.1041	16214.4	50.00
DRB1_0405	593	AAAQVAETERDNR IR	AQVAETERD	0.1035	16322.0	50.00
DRB1_0405	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.0716	23047.9	50.00

Allele: DRB1_0405. Number of high binders 36. Number of weak binders 214. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0701	260	IIAVSSLLRSHAVTL	LLRSHAVTL	0.9293	2.1	SB	0.15
DRB1_0701	261	IAVSSLLRSHAVTLN	LLRSHAVTL	0.9189	2.4	SB	0.20
DRB1_0701	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.9082	2.7	SB	0.40
DRB1_0701	237	YPRWREIVNANA AHL	IVNANA AHL	0.9069	2.7	SB	0.40
DRB1_0701	238	PRWREIVNANA AHLQ	IVNANA AHL	0.8985	3.0	SB	0.80
DRB1_0701	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.8922	3.2	SB	0.80
DRB1_0701	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.8839	3.5	SB	0.80
DRB1_0701	239	RWREIVNANA AHLQR	IVNANA AHL	0.8839	3.5	SB	0.80
DRB1_0701	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.8693	4.1	SB	1.00
DRB1_0701	240	WREIVNANA AHLQRA	IVNANA AHL	0.8640	4.4	SB	2.00
DRB1_0701	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.8507	5.0	SB	2.00
DRB1_0701	241	REIVNANA AHLQRAR	IVNANA AHL	0.8485	5.2	SB	2.00
DRB1_0701	105	VITVVSYS AQPSARL	YSAQPSARL	0.8270	6.5	SB	4.00
DRB1_0701	242	EIVNANA AHLQRARV	IVNANA AHL	0.8229	6.8	SB	4.00
DRB1_0701	72	VVIAGLLKQ GKSQLL	LKQ GKSQLL	0.8166	7.3	SB	4.00
DRB1_0701	106	ITVVSYS AQPSARLV	YSAQPSARL	0.8152	7.4	SB	4.00
DRB1_0701	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.8057	8.2	SB	4.00
DRB1_0701	243	IVNANA AHLQRARVP	IVNANA AHL	0.8001	8.7	SB	4.00
DRB1_0701	470	RMESKPLRRGHKMI I	LRRGHKMI I	0.7964	9.0	SB	4.00
DRB1_0701	439	SFADAGLDSVLSAEL	LDSVLSAEL	0.7956	9.1	SB	4.00
DRB1_0701	73	VIAGLLKQ GKSQLLN	LKQ GKSQLL	0.7929	9.4	SB	4.00
DRB1_0701	107	TVVSYS AQPSARLVL	YSAQPSARL	0.7921	9.5	SB	4.00
DRB1_0701	52	ADLVQRLTRARQRIT	LTRARQRIT	0.7866	10.1	SB	4.00
DRB1_0701	254	GRVPMPI IAVSSLLR	IIAVSSLLR	0.7826	10.5	SB	4.00
DRB1_0701	65	ITDPQVRVVIAGLLK	VRVVIAGLL	0.7825	10.5	SB	4.00
DRB1_0701	210	TEPEMWFVRQAHQIC	FVRQAHQIC	0.7707	12.0	SB	8.00
DRB1_0701	440	FADAGLDSVLSAELS	LDSVLSAEL	0.7681	12.3	SB	8.00
DRB1_0701	443	AGLDSVLSAELSPHV	LDSVLSAEL	0.7681	12.3	SB	8.00
DRB1_0701	283	SNFPAIVKFLSEQVL	VKFLSEQVL	0.7653	12.7	SB	8.00
DRB1_0701	255	RVPMP I IAVSSLLRS	IIAVSSLLR	0.7648	12.7	SB	8.00
DRB1_0701	74	IAGLLKQ GKSQLLNS	LKQ GKSQLL	0.7642	12.8	SB	8.00

DRB1_0701	295	QVLSRATERVRAGVL	TERVRAGVL	0.7596	13.5	SB	8.00
DRB1_0701	291	FLSEQVLSRATERVR	VLSRATERV	0.7591	13.6	SB	8.00
DRB1_0701	471	MESKPLRRGHKMIIG	LRRGHKMI I	0.7572	13.8	SB	8.00
DRB1_0701	66	TDPQVRVVIAGLLKQ	VRVVIAGLL	0.7567	13.9	SB	8.00
DRB1_0701	53	DLVQRLTRARQRITD	LTRARQRIT	0.7555	14.1	SB	8.00
DRB1_0701	444	GLDSVLSAELSPHVM	LSAELSPHV	0.7479	15.3	SB	8.00
DRB1_0701	108	VVSYSAQPSARLVLA	YSAQPSARL	0.7452	15.8	SB	8.00
DRB1_0701	256	VPMP I IAVSSLLRSH	I IAVSSLLR	0.7409	16.5	SB	8.00
DRB1_0701	75	AGLLKQGKSQLLNSL	LKQGKSQLL	0.7402	16.6	SB	8.00
DRB1_0701	211	EPFMWFVRQAHQICP	FVRQAHQIC	0.7368	17.3	SB	8.00
DRB1_0701	290	KFLSEQVLSRATERV	VLSRATERV	0.7330	18.0	SB	8.00
DRB1_0701	493	VVMIGMLSSVVGLGL	LSSVVGLGL	0.7326	18.1	SB	8.00
DRB1_0701	292	LSEQVLSRATERVRA	VLSRATERV	0.7300	18.6	SB	8.00
DRB1_0701	472	ESKPLRRGHKMI IGM	LRRGHKMI I	0.7276	19.1	SB	8.00
DRB1_0701	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.7274	19.1	SB	8.00
DRB1_0701	258	MPI IAVSSLLRSHAV	I IAVSSLLR	0.7247	19.7	SB	8.00
DRB1_0701	284	NFP AIVKFLSEQVLS	VKFLSEQVL	0.7224	20.2	SB	8.00
DRB1_0701	223	ICPVGAVVATKTDLY	VVATKTDLY	0.7215	20.4	SB	8.00
DRB1_0701	296	VLSRATERVRAGVLG	TERVRAGVL	0.7194	20.8	SB	8.00
DRB1_0701	76	GLLKQGKSQLLNSLL	LKQGKSQLL	0.7185	21.0	SB	8.00
DRB1_0701	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.7157	21.7	SB	8.00
DRB1_0701	494	VMIGMLSSVVGLGLF	LSSVVGLGL	0.7154	21.7	SB	8.00
DRB1_0701	257	PMP I IAVSSLLRSHA	I IAVSSLLR	0.7149	21.9	SB	8.00
DRB1_0701	109	VSYSAQPSARLVLA	YSAQPSARL	0.7113	22.7	SB	8.00
DRB1_0701	67	DQVRVVIAGLLKQG	VRVVIAGLL	0.7101	23.0	SB	8.00
DRB1_0701	54	LVQRLTRARQRITDP	LTRARQRIT	0.7085	23.4	SB	8.00
DRB1_0701	546	FVDDISFVVSQSRD	FVVSQSRD	0.7045	24.5	SB	16.00
DRB1_0701	445	LDSVLSAELSPHVMG	LDSVLSAEL	0.7041	24.6	SB	16.00
DRB1_0701	259	PI IAVSSLLRSHAVT	I IAVSSLLR	0.6999	25.7	SB	16.00
DRB1_0701	212	PEMWFVRQAHQICPV	FVRQAHQIC	0.6961	26.8	SB	16.00
DRB1_0701	495	MIGMLSSVVGLGLFN	LSSVVGLGL	0.6959	26.9	SB	16.00
DRB1_0701	68	PQVRVVIAGLLKQGK	VRVVIAGLL	0.6928	27.8	SB	16.00
DRB1_0701	77	LLKQGKSQLLNSLLN	LKQGKSQLL	0.6926	27.8	SB	16.00
DRB1_0701	473	SKPLRRGHKMI IGMR	LRRGHKMI I	0.6904	28.5	SB	16.00
DRB1_0701	442	DAGLDSVLSAELSPH	LDSVLSAEL	0.6892	28.9	SB	16.00
DRB1_0701	578	EEITRSLTESLQATI	LTESLQATI	0.6879	29.3	SB	16.00
DRB1_0701	285	FPAIVKFLSEQVLSR	VKFLSEQVL	0.6810	31.6	SB	16.00
DRB1_0701	293	SEQVLSRATERVRAG	VLSRATERV	0.6791	32.2	SB	16.00
DRB1_0701	69	QVRVVIAGLLKQGKS	VRVVIAGLL	0.6765	33.1	SB	16.00
DRB1_0701	110	SYSAQPSARLVLAAG	YSAQPSARL	0.6765	33.1	SB	16.00
DRB1_0701	474	KPLRRGHKMI IGMRG	LRRGHKMI I	0.6698	35.6	SB	16.00
DRB1_0701	418	VGDNFVWAYQRSEAL	WAYQRSEAL	0.6663	37.0	SB	16.00
DRB1_0701	505	LGLFNPLSVGAGLIL	PLSVGAGLI	0.6634	38.2	SB	16.00
DRB1_0701	78	LKQGKSQLLNSLLNL	LKQGKSQLL	0.6632	38.3	SB	16.00
DRB1_0701	321	VSLGSELSVNDPNL	LSVNDPNL	0.6616	38.9	SB	16.00
DRB1_0701	579	EITRSLTESLQATIA	LTESLQATI	0.6610	39.2	SB	16.00
DRB1_0701	83	SQLLNLSLLNLPAARV	LLNLPAARV	0.6602	39.5	SB	16.00
DRB1_0701	224	CPVGAVVATKTDLYP	VVATKTDLY	0.6595	39.8	SB	16.00
DRB1_0701	55	VQLTRARQRITDPQ	LTRARQRIT	0.6584	40.3	SB	16.00
DRB1_0701	504	GLGLFNPLSVGAGLI	PLSVGAGLI	0.6565	41.1	SB	16.00
DRB1_0701	496	IGMLSSVVGLGLFNP	LSSVVGLGL	0.6522	43.1	SB	16.00
DRB1_0701	70	VRVVIAGLLKQGKSQ	VRVVIAGLL	0.6514	43.5	SB	16.00
DRB1_0701	222	QICPVGAVVATKTDL	AVVATKTDL	0.6500	44.1	SB	16.00
DRB1_0701	195	EADAVLVVSDTSQEF	VVSDTSQEF	0.6481	45.0	SB	16.00
DRB1_0701	152	REVLRSVEVGAPSPLL	EVGAPSPLL	0.6470	45.6	SB	16.00
DRB1_0701	84	QLLNLSLLNLPAARVG	LLNLPAARV	0.6457	46.2	SB	16.00
DRB1_0701	547	VDDISFVVSQSRDR	FVVSQSRD	0.6452	46.5	SB	16.00
DRB1_0701	540	KANVRRFVDDISFVV	FVDDISFVV	0.6444	46.9	SB	16.00
DRB1_0701	294	EQVLSRATERVRAGV	VLSRATERV	0.6438	47.2	SB	16.00
DRB1_0701	213	EMWFVRQAHQICPVG	FVRQAHQIC	0.6431	47.6	SB	16.00
DRB1_0701	180	GLGQPHLSATLGLLP	HLSATLGLL	0.6428	47.7	SB	16.00
DRB1_0701	56	QRLTRARQRITDPQV	LTRARQRIT	0.6421	48.0	SB	16.00
DRB1_0701	179	GLGLQPHLSATLGLL	HLSATLGLL	0.6395	49.4	SB	16.00
DRB1_0701	111	YSAQPSARLVLAAGP	YSAQPSARL	0.6385	50.0	SB	16.00
DRB1_0701	196	ADAVLVVSDTSQEFT	VVSDTSQEF	0.6378	50.3	WB	16.00
DRB1_0701	574	REIAEEITRSLTESL	ITRSLTESL	0.6377	50.4	WB	16.00
DRB1_0701	497	GMLSSVVGLGLFNPL	LSSVVGLGL	0.6362	51.2	WB	16.00
DRB1_0701	58	LTRARQRITDPQVRV	LTRARQRIT	0.6350	51.9	WB	16.00
DRB1_0701	475	PLRRGHKMI IGMRGS	LRRGHKMI I	0.6284	55.7	WB	16.00
DRB1_0701	541	ANVRRFVDDISFVVS	FVDDISFVV	0.6282	55.8	WB	16.00

DRB1_0701	286	PAIVKFLSEQVLSRA	VKFLSEQVL	0.6272	56.5	WB	16.00
DRB1_0701	580	ITRSLTESLQATIAA	LTESLQATI	0.6247	58.0	WB	16.00
DRB1_0701	297	LSRATERVVRAGVLGE	TERVRAGVL	0.6239	58.5	WB	16.00
DRB1_0701	153	EVLRVVEVGAPSPLLR	EVGAPSPLL	0.6219	59.8	WB	16.00
DRB1_0701	506	GLFNPLSVGAGLILG	PLSVGAGLI	0.6171	63.0	WB	16.00
DRB1_0701	544	RRFVDDISFVVSQKS	FVDDISFVV	0.6166	63.3	WB	16.00
DRB1_0701	409	DVENAIATAVGNDFV	ATAVGNDFV	0.6159	63.8	WB	16.00
DRB1_0701	313	RSATEQLAVSLGSEL	LAVSLGSEL	0.6114	67.0	WB	16.00
DRB1_0701	480	HKMIIGMRGSYGGVV	MRGSYGGVV	0.6109	67.4	WB	16.00
DRB1_0701	322	SLGSELSVVNDPNLR	LSVVNDPNL	0.6107	67.5	WB	16.00
DRB1_0701	419	GDNFVLSVQRSEALA	WAYQRSEAL	0.6092	68.6	WB	16.00
DRB1_0701	225	PVGAVVATKTDLYPR	VVATKTDLY	0.6091	68.7	WB	16.00
DRB1_0701	181	LGQPHLSATLGLLPE	HLSATLGLL	0.6083	69.3	WB	16.00
DRB1_0701	548	DDISFVVSQSRDRL	FVVSQSRD	0.6072	70.1	WB	16.00
DRB1_0701	214	MWFVRQAHQICPVGA	FVRQAHQIC	0.6069	70.3	WB	16.00
DRB1_0701	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.6045	72.2	WB	16.00
DRB1_0701	542	NVRSFVDDISFVVS	FVDDISFVV	0.6030	73.4	WB	16.00
DRB1_0701	282	ESNFFPAIVKFLSEQV	IVKFLSEQV	0.6007	75.2	WB	32.00
DRB1_0701	57	RLTRARQRITDPQVR	LTRARQRIT	0.6001	75.7	WB	32.00
DRB1_0701	481	KMIIGMRGSYGGVVM	MRGSYGGVV	0.5996	76.1	WB	32.00
DRB1_0701	197	DAVLVVS DTSQEFTE	VVS DTSQEF	0.5992	76.4	WB	32.00
DRB1_0701	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.5976	77.8	WB	32.00
DRB1_0701	575	EIAEEITRSLTESLQ	ITRSLTESL	0.5950	80.0	WB	32.00
DRB1_0701	287	AIVKFLSEQVLSRAT	VKFLSEQVL	0.5943	80.6	WB	32.00
DRB1_0701	410	VENAIATAVGNDFVW	ATAVGNDFV	0.5943	80.6	WB	32.00
DRB1_0701	545	RFVDDISFVVSQSR	FVDDISFVV	0.5943	80.6	WB	32.00
DRB1_0701	85	LLNSLLNLPAAVGD	LLNLPAAV	0.5939	80.9	WB	32.00
DRB1_0701	576	IAEEITRSLTESLQA	ITRSLTESL	0.5911	83.5	WB	32.00
DRB1_0701	498	MLSSVVGLGLFNPLS	LSSVVGLGL	0.5909	83.6	WB	32.00
DRB1_0701	482	MIIIGMRGSYGGVVM	MRGSYGGVV	0.5880	86.3	WB	32.00
DRB1_0701	215	WFVVRQAHQICPVGAV	FVRQAHQIC	0.5798	94.3	WB	32.00
DRB1_0701	420	DNFVWAYQRSEALAD	WAYQRSEAL	0.5769	97.3	WB	32.00
DRB1_0701	562	LKMIQRLLRDHYREI	LLRDHYREI	0.5757	98.6	WB	32.00
DRB1_0701	182	GQPHLSATLGLLPEA	HLSATLGLL	0.5748	99.5	WB	32.00
DRB1_0701	543	VRRFVDDISFVVSQK	FVDDISFVV	0.5724	102.1	WB	32.00
DRB1_0701	226	VGAVVATKTDLYPRW	VVATKTDLY	0.5722	102.3	WB	32.00
DRB1_0701	507	LAFNPLSVGAGLILGR	PLSVGAGLI	0.5716	103.0	WB	32.00
DRB1_0701	314	SATEQLAVSLGSELS	LAVSLGSEL	0.5711	103.6	WB	32.00
DRB1_0701	154	VLRVEVGAPSPLLRG	EVGAPSPLL	0.5706	104.2	WB	32.00
DRB1_0701	204	DTSQEFTEPEMWFVR	FTEPEMWFV	0.5702	104.7	WB	32.00
DRB1_0701	499	LSSVVGLGLFNPLSV	LSSVVGLGL	0.5677	107.5	WB	32.00
DRB1_0701	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.5654	110.2	WB	32.00
DRB1_0701	298	SRATERVRAGVLGEI	TERVRAGVL	0.5643	111.5	WB	32.00
DRB1_0701	187	SATLGLLPEADAVLV	LLPEADAVL	0.5636	112.3	WB	32.00
DRB1_0701	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.5557	122.4	WB	32.00
DRB1_0701	59	TRARQRITDPQVRV	RITDPQVRV	0.5488	131.9	WB	32.00
DRB1_0701	549	DISFVVSQSRDRLK	FVVSQSRD	0.5488	131.9	WB	32.00
DRB1_0701	288	IVKFLSEQVLSRATE	VKFLSEQVL	0.5480	133.0	WB	32.00
DRB1_0701	577	AEIITRSLTESLQAT	ITRSLTESL	0.5461	135.7	WB	32.00
DRB1_0701	508	FNPLSVGAGLILGRM	PLSVGAGLI	0.5458	136.2	WB	32.00
DRB1_0701	198	AVLVVS DTSQEFTEP	VVS DTSQEF	0.5457	136.4	WB	32.00
DRB1_0701	227	GAVVATKTDLYPRWR	VVATKTDLY	0.5441	138.8	WB	32.00
DRB1_0701	253	RARVPMPPIIAVSSLL	PPIIAVSSLL	0.5440	139.0	WB	32.00
DRB1_0701	476	LRRGHKMIIGMRGSY	LRRGHKMI	0.5437	139.4	WB	32.00
DRB1_0701	306	AGVLGEIRSATEQLA	EIRSATEQL	0.5436	139.6	WB	32.00
DRB1_0701	491	GGVVMIGMLSSVVGL	MIGMLSSVV	0.5416	142.6	WB	32.00
DRB1_0701	469	GRMESKPLRRGHKMI	PLRRGHKMI	0.5414	142.9	WB	32.00
DRB1_0701	483	IIGMRGSYGGVVMIG	MRGSYGGVV	0.5400	145.1	WB	32.00
DRB1_0701	183	QPHLSATLGLLPEAD	HLSATLGLL	0.5380	148.2	WB	32.00
DRB1_0701	99	DDEATVVITVVSYS	VITVVSYS	0.5376	148.9	WB	32.00
DRB1_0701	86	LNSLLNLPAAVGD	LLNLPAAV	0.5347	153.6	WB	32.00
DRB1_0701	188	ATLGLLPEADAVLVV	LLPEADAVL	0.5345	153.9	WB	32.00
DRB1_0701	489	SYGGVVMIGMLSSVV	MIGMLSSVV	0.5339	155.0	WB	32.00
DRB1_0701	411	ENAIATAVGNDFVWA	ATAVGNDFV	0.5312	159.6	WB	32.00
DRB1_0701	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.5306	160.5	WB	32.00
DRB1_0701	563	KMIQRLLRDHYREIA	LLRDHYREI	0.5287	164.0	WB	32.00
DRB1_0701	584	LTESLQATIAAAQVA	LTESLQATI	0.5274	166.3	WB	32.00
DRB1_0701	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.5242	172.1	WB	32.00
DRB1_0701	464	RLKALGRMESKPLRR	RMESKPLRR	0.5238	172.8	WB	32.00
DRB1_0701	462	FGRLKALGRMESKPL	LGRMESKPL	0.5236	173.1	WB	32.00

DRB1_0701	186	LSATLGLLPEADAVL	LLPEADAVL	0.5216	177.1	WB	32.00
DRB1_0701	299	RATERVRAGVLGEIR	TERVRAGVL	0.5214	177.5	WB	32.00
DRB1_0701	199	VLVSDTSQEFTEPE	VVSDTSQEF	0.5202	179.8	WB	32.00
DRB1_0701	307	DEATVITVVSYSQAQ	EIRSATEQL	0.5196	180.9	WB	32.00
DRB1_0701	100	GVLTAVVITVVSYSQAQ	VITVVSYSQA	0.5179	184.3	WB	32.00
DRB1_0701	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.5177	184.6	WB	32.00
DRB1_0701	421	NFVWAYQRSEALADD	WAYQRSEAL	0.5174	185.2	WB	32.00
DRB1_0701	550	ISFVVKQSRDRLKM	FVVKQSRD	0.5169	186.3	WB	32.00
DRB1_0701	289	VKFLSEQVLSRATER	VKFLSEQVL	0.5162	187.6	WB	32.00
DRB1_0701	247	NAAHLQARVPMPPII	QARVPMPPI	0.5162	187.7	WB	32.00
DRB1_0701	317	EQVLAVSLGSELSVNV	LAVSLGSEL	0.5159	188.2	WB	32.00
DRB1_0701	228	AVVATKTDLYPRWRE	VVATKTDLY	0.5159	188.3	WB	32.00
DRB1_0701	155	LRVEVGAPSPLLRGG	EVGAPSPLL	0.5146	191.0	WB	32.00
DRB1_0701	530	NRLLRVRSEAKANVR	RSEAKANVR	0.5141	191.9	WB	32.00
DRB1_0701	60	RARQRITDPQVRVVI	RITDPQVRV	0.5141	192.0	WB	32.00
DRB1_0701	581	TRSLTESLQATIAAAA	LTESLQATI	0.5132	193.8	WB	32.00
DRB1_0701	184	PHLSATLGLLPEADA	HLSATLGLL	0.5110	198.4	WB	32.00
DRB1_0701	446	DVLSAELSPHVMGT	LSAELSPHV	0.5104	199.8	WB	32.00
DRB1_0701	490	YGGVVMIGMLSSVVG	MIGMLSSVV	0.5082	204.6	WB	32.00
DRB1_0701	5	LCAYRDLRRKRARKW	LRRKRARKW	0.5068	207.7	WB	32.00
DRB1_0701	556	KQSRDRLKMIQRLLR	LKMIQRLLR	0.5044	213.3	WB	32.00
DRB1_0701	509	NPLSVGAGLILGRMA	PLSVGAGLI	0.5035	215.4	WB	32.00
DRB1_0701	51	RGDLVQRLTRARQRI	RLTRARQRI	0.5030	216.4	WB	32.00
DRB1_0701	492	GVMIGMLSSVVGLG	MIGMLSSVV	0.5029	216.7	WB	32.00
DRB1_0701	324	GSELSVNDPNLRDR	LSVNDPNL	0.5026	217.3	WB	32.00
DRB1_0701	485	GMRGSYGGVVMIGML	MRGSYGGVV	0.5012	220.7	WB	32.00
DRB1_0701	582	RSLTESLQATIAAAQ	LTESLQATI	0.4975	229.6	WB	32.00
DRB1_0701	404	AEIGNDVENAIATAV	VENAIATAV	0.4962	232.9	WB	32.00
DRB1_0701	305	RAGVLGEIRSATEQL	EIRSATEQL	0.4954	235.0	WB	32.00
DRB1_0701	527	DQONRLLRVRSEAKA	LLRVRSEAK	0.4933	240.4	WB	32.00
DRB1_0701	206	SQEFTEPEMWFVRQA	FTEPEMWFV	0.4924	242.7	WB	32.00
DRB1_0701	447	SVLSAELSPHVMGTD	LSAELSPHV	0.4907	247.2	WB	32.00
DRB1_0701	101	EATVVITVVSYSQAQ	VITVVSYSQA	0.4882	254.0	WB	32.00
DRB1_0701	422	FVWAYQRSEALADDV	WAYQRSEAL	0.4880	254.5	WB	32.00
DRB1_0701	189	TLGLLPEADAVLVVS	LLPEADAVL	0.4875	255.9	WB	32.00
DRB1_0701	156	RVEVGAPSPLLRGG	EVGAPSPLL	0.4870	257.4	WB	32.00
DRB1_0701	200	LLVSDTSQEFTEPEM	VVSDTSQEF	0.4861	259.8	WB	32.00
DRB1_0701	87	NSLLNLPAARVGDE	LLNLPAARV	0.4861	259.8	WB	32.00
DRB1_0701	412	NAIATAVGDNFVWAY	ATAVGDNFV	0.4858	260.8	WB	32.00
DRB1_0701	416	TAVGDNFVWAYQRSE	FVWAYQRSE	0.4830	268.8	WB	32.00
DRB1_0701	583	SLTESLQATIAAAQV	LTESLQATI	0.4819	272.0	WB	32.00
DRB1_0701	551	SFVVKQSRDRLKMI	FVVKQSRD	0.4817	272.6	WB	32.00
DRB1_0701	564	MIQRLLRDHYREIAE	LLRDHYREI	0.4807	275.5	WB	32.00
DRB1_0701	486	MRGSYGGVVMIGMLS	MRGSYGGVV	0.4799	278.0	WB	32.00
DRB1_0701	248	AAHLQARVPMPPIIA	RARVPMPPI	0.4797	278.6	WB	32.00
DRB1_0701	318	QLAVSLGSELSVVND	LAVSLGSEL	0.4757	291.0	WB	32.00
DRB1_0701	208	EFTEPEMWFVRQAHQ	FTEPEMWFV	0.4756	291.0	WB	32.00
DRB1_0701	510	PLSVGAGLILGRMAY	PLSVGAGLI	0.4752	292.4	WB	32.00
DRB1_0701	207	QEFTEPEMWFVRQAH	FTEPEMWFV	0.4750	293.0	WB	32.00
DRB1_0701	529	QRNLLRVRSEAKANV	LLRVRSEAK	0.4738	296.8	WB	32.00
DRB1_0701	102	ATVVTITVVSYSQAQPS	VITVVSYSQA	0.4735	297.8	WB	32.00
DRB1_0701	300	ATERVRAGVLGEIRS	TERVRAGVL	0.4719	303.0	WB	32.00
DRB1_0701	325	SELSVNDPNLRDRL	LSVNDPNL	0.4711	305.7	WB	32.00
DRB1_0701	246	ANAAHLQARVPMPPI	QARVPMPPI	0.4683	315.3	WB	32.00
DRB1_0701	308	VLGEIRSATEQLAVS	EIRSATEQL	0.4674	318.1	WB	32.00
DRB1_0701	531	RLLRVRSEAKANVRR	RSEAKANVR	0.4670	319.5	WB	32.00
DRB1_0701	103	TVVITVVSYSQAQPSA	VITVVSYSQA	0.4669	319.8	WB	32.00
DRB1_0701	61	ARQRITDPQVRVIA	RITDPQVRV	0.4664	321.6	WB	32.00
DRB1_0701	532	LLRVRSEAKANVRRF	RSEAKANVR	0.4658	323.6	WB	32.00
DRB1_0701	413	AIATAVGDNFVWAYQ	ATAVGDNFV	0.4622	336.5	WB	32.00
DRB1_0701	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.4606	342.6	WB	32.00
DRB1_0701	88	SLLNLPAARVGDEFA	LLNLPAARV	0.4598	345.3	WB	32.00
DRB1_0701	448	PLLSAELSPHVMGTD	LSAELSPHV	0.4596	346.2	WB	32.00
DRB1_0701	29	PRRVGIVELIDHTI	IVELIDHTI	0.4595	346.7	WB	32.00
DRB1_0701	229	VVATKTDLYPRWREI	VVATKTDLY	0.4561	359.7	WB	32.00
DRB1_0701	463	GRLKALGRMESKPLR	LGRMESKPL	0.4555	362.1	WB	32.00
DRB1_0701	157	VEVGAPSPLLRGGLA	EVGAPSPLL	0.4537	368.8	WB	50.00
DRB1_0701	178	VGGLGQPHLSATLGL	PHLSATLGL	0.4533	370.8	WB	50.00
DRB1_0701	405	EIGNDVENAIATAVG	VENAIATAV	0.4493	387.0	WB	50.00
DRB1_0701	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.4490	388.4	WB	50.00

DRB1_0701	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.4474	395.1	WB	50.00
DRB1_0701	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.4467	397.9	WB	50.00
DRB1_0701	414	IATAVGDNFVWAYQR	ATAVGDNFV	0.4450	405.4	WB	50.00
DRB1_0701	190	LGLLPEADAVLVVSD	LLPEADAVL	0.4440	409.7	WB	50.00
DRB1_0701	158	EVGAPSPLLRGGLAF	EVGAPSPLL	0.4435	412.3	WB	50.00
DRB1_0701	417	AVGDNFVWAYQRSEA	FVWAYQRSE	0.4434	412.4	WB	50.00
DRB1_0701	552	FVVSKQSRDRLKMIQ	FVVSKQSRD	0.4425	416.6	WB	50.00
DRB1_0701	555	SKQSRDRLKMIQRLL	RLKMIQRLL	0.4420	418.7	WB	50.00
DRB1_0701	6	CAYRDLRRKRARKWG	LRRKRARKW	0.4408	424.1	WB	50.00
DRB1_0701	217	VRQAHQICPVGAVVA	ICPVGAVVA	0.4399	428.4	WB	50.00
DRB1_0701	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.4397	429.1	WB	50.00
DRB1_0701	122	AAGPDGTTAAVDIPV	TTAAVDIPV	0.4388	433.6	WB	50.00
DRB1_0701	309	LGEIRSATEQLAVSL	EIRSATEQL	0.4372	441.1	WB	50.00
DRB1_0701	465	LKALGRMESKPLRRG	RMESKPLRR	0.4371	441.6	WB	50.00
DRB1_0701	249	AHLQRRARVPMPIIAV	QRARVPMPI	0.4370	442.1	WB	50.00
DRB1_0701	30	RRVGVIVELIDHTIA	IVELIDHTI	0.4321	465.9	WB	50.00
DRB1_0701	104	VVITVVVSYSQAQPSAR	VITVVVSYS	0.4318	467.4	WB	50.00
DRB1_0701	301	TERVRAGVLGEIRSA	TERVRAGVL	0.4317	468.1	WB	50.00
DRB1_0701	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.4305	474.5	WB	50.00
DRB1_0701	449	LSAELSPHVMGTDFG	LSAELSPHV	0.4302	476.0	WB	50.00
DRB1_0701	89	LLNLPAARVGDDEAT	LLNLPAARV	0.4265	495.4	WB	50.00
DRB1_0701	329	VVNDPNLRDRLASDL	LRDRLASDL	0.4264	495.6	WB	50.00
DRB1_0701	565	IQRLLRDHYREIAEE	LLRDHYREI	0.4241	508.1		50.00
DRB1_0701	62	RQITDTPQVRVVIAG	RITDTPQVRV	0.4205	528.8		50.00
DRB1_0701	567	RLLRDHYREIAEET	LLRDHYREI	0.4184	540.6		50.00
DRB1_0701	185	HLSATLGLLPEADAV	HLSATLGLL	0.4128	574.2		50.00
DRB1_0701	610	QRQLGILSQVNDNLA	LSQVNDNLA	0.4118	580.8		50.00
DRB1_0701	456	HVMGTDFGRLKALGR	FGRLKALGR	0.4099	592.9		50.00
DRB1_0701	191	GLLPEADAVLVVSDT	LLPEADAVL	0.4092	597.4		50.00
DRB1_0701	35	IVELIDHTIAIAKLN	HTIAIAKLN	0.4067	613.4		50.00
DRB1_0701	566	QRLLRDHYREIAEEI	LLRDHYREI	0.4060	618.1		50.00
DRB1_0701	406	IGNDVENAIATAVGD	VENAIATAV	0.4054	622.3		50.00
DRB1_0701	220	AHQICPVGAVVATKT	ICPVGAVVA	0.4050	624.9		50.00
DRB1_0701	192	LLPEADAVLVVSDTS	LLPEADAVL	0.4048	626.2		50.00
DRB1_0701	218	RQAHQICPVGAVVAT	ICPVGAVVA	0.4037	634.0		50.00
DRB1_0701	7	AYADLRRKRARKWGD	LRRKRARKW	0.4036	634.5		50.00
DRB1_0701	415	ATRVGDNFVWAYQRS	ATAVGDNFV	0.4024	643.2		50.00
DRB1_0701	71	RVVIAGLLKQKSQL	LLKQKSQL	0.4010	652.5		50.00
DRB1_0701	63	QRITDTPQVRVVIAGL	RITDTPQVRV	0.4001	659.0		50.00
DRB1_0701	533	LRRVSEAKANVRRFV	RSEAKANVR	0.3966	684.6		50.00
DRB1_0701	373	ADVVDHLRTRFRVT	LRTRFRVT	0.3963	686.4		50.00
DRB1_0701	558	SRDRLKMIQRLLRDH	LKMIQRLLR	0.3957	691.0		50.00
DRB1_0701	327	LSVVNDPNLRDRLAS	LSVVNDPNL	0.3942	702.6		50.00
DRB1_0701	151	GREVLRVEVGAPSPL	VEVGAPSPL	0.3938	705.3		50.00
DRB1_0701	310	GEIRSATEQLAVSLG	EIRSATEQL	0.3934	708.6		50.00
DRB1_0701	250	HLQRRARVPMPIIAVS	QRARVPMPI	0.3933	709.1		50.00
DRB1_0701	423	VWAYQRSEALADDVA	WAYQRSEAL	0.3914	724.3		50.00
DRB1_0701	624	AGLEPTLTTPRASLGR	LTPRASLGR	0.3910	727.4		50.00
DRB1_0701	31	RVGVIVELIDHTIAI	IVELIDHTI	0.3888	744.5		50.00
DRB1_0701	457	VMDPTDFGRLKALGRM	FGRLKALGR	0.3864	764.5		50.00
DRB1_0701	330	VNDPNLRDRLASDLE	LRDRLASDL	0.3816	804.9		50.00
DRB1_0701	123	AGPDGTTAAVDIPVD	TTAAVDIPV	0.3793	825.6		50.00
DRB1_0701	9	RDLRRKRARKWGDV	LRRKRARKW	0.3777	839.9		50.00
DRB1_0701	466	KALGRMESKPLRRGH	RMESKPLRR	0.3748	866.6		50.00
DRB1_0701	408	NDVENAIATAVGDNF	VENAIATAV	0.3728	885.8		50.00
DRB1_0701	137	DDISTDVRRAPHAGG	VRRAPHAGG	0.3677	935.5		50.00
DRB1_0701	221	HQICPVGAVVATKTD	ICPVGAVVA	0.3670	942.7		50.00
DRB1_0701	311	EIRSATEQLAVSLGS	IRSATEQLA	0.3665	947.5		50.00
DRB1_0701	568	LLRDHYREIAEETR	LLRDHYREI	0.3659	954.3		50.00
DRB1_0701	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.3655	958.3		50.00
DRB1_0701	599	ETERDNRIRELQRQL	RIRELQRQL	0.3652	961.3		50.00
DRB1_0701	33	GVIVELIDHTIAIAK	IVELIDHTI	0.3637	977.4		50.00
DRB1_0701	252	QRARVPMPIIAVSSL	MPIIAVSSL	0.3633	981.5		50.00
DRB1_0701	407	GNDVENAIATAVGDN	VENAIATAV	0.3631	983.1		50.00
DRB1_0701	8	YRDLRRKRARKWGDT	LRRKRARKW	0.3629	985.9		50.00
DRB1_0701	623	LAGLEPTLTTPRASLG	PTLTTPRASL	0.3624	991.1		50.00
DRB1_0701	219	QAHQICPVGAVVATK	ICPVGAVVA	0.3624	991.5		50.00
DRB1_0701	166	LRGGLAFIDTPGVGG	FIDTPGVGG	0.3611	1004.9		50.00
DRB1_0701	164	PLLRGGLAFIDTPGV	LAFIDTPGV	0.3580	1039.6		50.00
DRB1_0701	251	LQRARVPMPIIAVSS	QRARVPMPI	0.3574	1045.9		50.00

DRB1_0701	534	RVRSEAKANVRRFVD	RSEAKANVR	0.3572	1047.9	50.00
DRB1_0701	245	NANA AHLQRARVMP	LQRARVMP	0.3540	1084.7	50.00
DRB1_0701	10	DLRRKRARKWGDVT	LRRKRARKW	0.3521	1108.0	50.00
DRB1_0701	374	DVEHDLRTRFRVT	LRTRFRVT	0.3513	1117.5	50.00
DRB1_0701	625	GLEPTLTPRASLGRA	LTPRASLGR	0.3511	1119.6	50.00
DRB1_0701	424	WAYQRSEALADDVAR	WAYQRSEAL	0.3507	1124.5	50.00
DRB1_0701	518	ILGRMAYKEDKQNR	YKEDKQNR	0.3504	1128.6	50.00
DRB1_0701	611	RQLGILSQVNDNLAG	LSQVNDNLA	0.3499	1135.1	50.00
DRB1_0701	167	RGGLAFIDTPGVGG	FIDTPGVGG	0.3497	1136.8	50.00
DRB1_0701	37	ELIDHTIAIAKLNER	IDHTIAIAK	0.3488	1148.0	50.00
DRB1_0701	331	NDPNLRDRLASDLER	LRDRLASDL	0.3463	1179.8	50.00
DRB1_0701	193	LPEADAVLVVSDTSQ	VLVVSDTSQ	0.3424	1230.8	50.00
DRB1_0701	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.3382	1287.4	50.00
DRB1_0701	34	VIVELIDHTIAIAKL	IVELIDHTI	0.3381	1289.2	50.00
DRB1_0701	458	MGTDFGRLKALGRME	FGRLKALGR	0.3305	1400.0	50.00
DRB1_0701	11	LRRKRARKWGDVTQ	LRRKRARKW	0.3304	1401.4	50.00
DRB1_0701	622	NLAGLEPTLTPRASL	PTLTPRASL	0.3281	1435.8	50.00
DRB1_0701	138	DISTDVRRAPHAGGR	VRRAPHAGG	0.3249	1486.1	50.00
DRB1_0701	140	STDVRRAPHAGGREV	APHAGGREV	0.3239	1503.1	50.00
DRB1_0701	0	MVPAGLCAYRDLRRK	LCAYRDLRR	0.3215	1541.8	50.00
DRB1_0701	350	AQQAVQQTALWQQVL	QTALWQQVL	0.3213	1546.1	50.00
DRB1_0701	125	PDGTTAAVDIPVDDI	TTAAVDIPV	0.3208	1555.0	50.00
DRB1_0701	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.3206	1557.5	50.00
DRB1_0701	113	AQPSARLVLAAGPDG	LVLAAGPDG	0.3203	1561.9	50.00
DRB1_0701	459	GTFDFGRLKALGRMES	FGRLKALGR	0.3200	1567.4	50.00
DRB1_0701	36	VELIDHTIAIAKLNE	IDHTIAIAK	0.3194	1577.7	50.00
DRB1_0701	124	GPDGTTAAVDIPVDD	TTAAVDIPV	0.3192	1581.1	50.00
DRB1_0701	612	QLGILSQVNDNLAGL	LSQVNDNLA	0.3180	1602.2	50.00
DRB1_0701	570	RDHYREIAEEITRSL	IAEEITRSL	0.3164	1629.3	50.00
DRB1_0701	451	AELSPHVMGTFDFGRL	VMGTFDFGRL	0.3159	1639.1	50.00
DRB1_0701	467	ALGRMESKPLRRGHK	LGRMESKPL	0.3141	1671.4	50.00
DRB1_0701	519	LGRMAYKEDKQNRLL	YKEDKQNR	0.3116	1717.6	50.00
DRB1_0701	32	VGIVELIDHTIAIA	IVELIDHTI	0.3110	1727.9	50.00
DRB1_0701	535	VRSEAKANVRRFVDD	RSEAKANVR	0.3073	1799.0	50.00
DRB1_0701	114	QPSARLVLAAGPDGT	LVLAAGPDG	0.3066	1811.8	50.00
DRB1_0701	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.3045	1853.1	50.00
DRB1_0701	600	TERGNLRIELQRQLG	RIELQRQL	0.3044	1856.9	50.00
DRB1_0701	354	VQQTALWQQLGDGF	WQQLGDGF	0.3029	1885.9	50.00
DRB1_0701	267	LRSHAVTLNDKELNE	AVTLNDKEL	0.3028	1889.2	50.00
DRB1_0701	194	PEADAVLVVSDTSQE	LVVSDTSQE	0.2996	1955.5	50.00
DRB1_0701	434	DDVARSFADAGLDSV	FADAGLDSV	0.2993	1961.9	50.00
DRB1_0701	141	TDVRRAPHAGGREVL	APHAGGREV	0.2975	2001.0	50.00
DRB1_0701	332	DPNLRDRLASDLERR	LRDRLASDL	0.2971	2008.8	50.00
DRB1_0701	375	VDHDLRTRFRVTED	LRTRFRVT	0.2970	2010.8	50.00
DRB1_0701	312	IRSATEQLAVSLGSE	IRSATEQLA	0.2962	2029.2	50.00
DRB1_0701	609	LQRQLGILSQVNDNL	ILSQVNDNL	0.2956	2042.6	50.00
DRB1_0701	585	TESLQATIAAAQVAE	ATIAAAQVA	0.2952	2051.4	50.00
DRB1_0701	126	DGTTAAVDIPVDDIS	TTAAVDIPV	0.2935	2089.5	50.00
DRB1_0701	477	IRGHKMIIGMRGSYG	IIGMRGSYG	0.2927	2107.5	50.00
DRB1_0701	452	ELSPHVMGTFDFGRLK	VMGTFDFGRL	0.2919	2124.5	50.00
DRB1_0701	572	HYREIAEEITRSLTE	IAEEITRSL	0.2907	2152.5	50.00
DRB1_0701	38	LIDHTIAIAKLNERG	IAIAKLNER	0.2896	2178.9	50.00
DRB1_0701	50	ERGLDVQRLTRARQR	QRLTRARQR	0.2891	2190.3	50.00
DRB1_0701	25	QPDDPRRVGVIVELI	RVGVIVELI	0.2886	2201.6	50.00
DRB1_0701	435	DVARSFADAGLDSVL	FADAGLDSV	0.2882	2211.3	50.00
DRB1_0701	115	PSARLVLAAGPDGTT	LVLAAGPDG	0.2877	2223.7	50.00
DRB1_0701	468	LGRMESKPLRRGHKM	LGRMESKPL	0.2864	2254.7	50.00
DRB1_0701	168	GGLAFIDTPGVGGGLG	FIDTPGVGG	0.2863	2258.5	50.00
DRB1_0701	571	DHYREIAEEITRSLT	IAEEITRSL	0.2850	2290.1	50.00
DRB1_0701	460	TDFGRLKALGRMESK	FGRLKALGR	0.2819	2366.5	50.00
DRB1_0701	80	QGKSQLLNSLLNLP	LNSLLNLP	0.2810	2389.9	50.00
DRB1_0701	372	TADVSDHLRTRFRTV	DLRTRFRTV	0.2805	2403.5	50.00
DRB1_0701	613	LIGILSQVNDNLAGLE	LSQVNDNLA	0.2804	2406.2	50.00
DRB1_0701	333	PNLRDRLASDLERRK	LRDRLASDL	0.2768	2501.3	50.00
DRB1_0701	586	ESLQATIAAAQVAET	ATIAAAQVA	0.2765	2511.5	50.00
DRB1_0701	139	ISTDVRRAPHAGGRE	VRRAPHAGG	0.2762	2517.3	50.00
DRB1_0701	520	GRMAYKEDKQNRLLR	YKEDKQNR	0.2757	2530.9	50.00
DRB1_0701	351	QQAVQQTALWQQVLG	QTALWQQVL	0.2748	2557.5	50.00
DRB1_0701	601	ERDNRIELQRQLGI	RIELQRQL	0.2747	2558.7	50.00
DRB1_0701	1	VPAGLCAYRDLRRKR	LCAYRDLRR	0.2714	2652.3	50.00

DRB1_0701	26	PDDPRRVGVIVELID	RVGVIVELI	0.2706	2676.6	50.00
DRB1_0701	112	SAQPSARLVLAAGPD	AQPSARLVL	0.2691	2719.8	50.00
DRB1_0701	355	QQTALWQQVLGDGFN	WQQVLGDGF	0.2689	2725.8	50.00
DRB1_0701	320	AVSLGSELSVVNDPN	VSLGSELSV	0.2679	2755.2	50.00
DRB1_0701	127	GTAAVDIPVDDIST	TTAAVDIPV	0.2658	2817.0	50.00
DRB1_0701	145	RAPHAGGREVLRVEV	GREVLRVEV	0.2630	2905.6	50.00
DRB1_0701	334	NLRDRLASDLERRKR	LRDRLASDL	0.2614	2955.0	50.00
DRB1_0701	453	LSPHVMGTDFGRLKA	VMGTDFGRL	0.2613	2958.5	50.00
DRB1_0701	377	HDLRTRFRFTVTEDAE	LRTRFRFTVT	0.2608	2976.2	50.00
DRB1_0701	376	RHELRTRFRFTVTEDA	LRTRFRFTVT	0.2597	3010.4	50.00
DRB1_0701	536	RSEAKANVRRFVDDI	RSEAKANVR	0.2595	3015.7	50.00
DRB1_0701	602	RDNRIRELQRQLGIL	RIRELQRQL	0.2591	3031.6	50.00
DRB1_0701	230	VATKTDLYPRWREIV	LYPRWREIV	0.2576	3078.4	50.00
DRB1_0701	478	RGHKMIIGMRGSYGG	IIGMRGSYG	0.2574	3086.5	50.00
DRB1_0701	479	GHKMIIGMRGSYGGV	IIGMRGSYG	0.2573	3088.9	50.00
DRB1_0701	142	DVRRAPHAGGREVLR	VRRAPHAGG	0.2561	3130.3	50.00
DRB1_0701	521	RMAKEDKQNRLLRV	YKEDKQNR	0.2559	3136.1	50.00
DRB1_0701	614	GILSQVNDNLAGLEP	LSQVNDNLA	0.2556	3146.8	50.00
DRB1_0701	39	IDHTIAIAKLNERGD	IDHTIAIAK	0.2527	3246.8	50.00
DRB1_0701	436	VARSFADAGLDSVLS	FADAGLDSV	0.2507	3318.9	50.00
DRB1_0701	357	TALWQQVLGDGFNDL	WQQVLGDGF	0.2499	3348.9	50.00
DRB1_0701	81	GKSQLLNSLLNLPAA	LNSLLNLP	0.2492	3373.0	50.00
DRB1_0701	176	PGVGGGLQPHLSATL	GQPHLSATL	0.2492	3373.4	50.00
DRB1_0701	603	DNRIRELQRQLGILS	RIRELQRQL	0.2484	3401.4	50.00
DRB1_0701	116	SARLVLAAGPDGTTA	VLAAGPDGT	0.2480	3418.5	50.00
DRB1_0701	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.2477	3428.2	50.00
DRB1_0701	461	DFGRLKALGRMESKP	FGRLKALGR	0.2473	3442.4	50.00
DRB1_0701	41	HTIAIAKLNERGDLV	KLNERGDLV	0.2470	3453.5	50.00
DRB1_0701	2	PAGLCAYRDLRRKRA	LCAYRDLRR	0.2447	3542.5	50.00
DRB1_0701	231	ATKTDLYPRWREIVN	LYPRWREIV	0.2425	3624.4	50.00
DRB1_0701	27	DDPRRVGVIVELIDH	RVGVIVELI	0.2425	3627.6	50.00
DRB1_0701	42	TIAIAKLNERGDLVQ	KLNERGDLV	0.2420	3645.4	50.00
DRB1_0701	244	VNANA AHLQARVPM	HLQARVPM	0.2412	3677.4	50.00
DRB1_0701	454	SPHVMGTDFGRLKAL	VMGTDFGRL	0.2411	3681.2	50.00
DRB1_0701	335	LRDRLASDLERRKRE	LRDRLASDL	0.2410	3687.0	50.00
DRB1_0701	538	EAKANVRRFVDDISF	RRFVDDISF	0.2403	3712.0	50.00
DRB1_0701	169	GKAFIDTPGVGGLGQ	FIDTPGVGG	0.2389	3772.4	50.00
DRB1_0701	340	ASDLERRKREAAQAV	RKREAAQAV	0.2386	3782.0	50.00
DRB1_0701	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.2377	3820.7	50.00
DRB1_0701	356	QTALWQQVLGDGFND	WQQVLGDGF	0.2375	3828.6	50.00
DRB1_0701	172	FIDTPGVGGLGQPHL	VGGLGQPHL	0.2367	3861.4	50.00
DRB1_0701	522	MAYKEDKQNRLLRVR	YKEDKQNR	0.2364	3873.3	50.00
DRB1_0701	352	QAVQQVTALWQQVLGD	QTALWQQVL	0.2341	3972.1	50.00
DRB1_0701	615	ILSQVNDNLAGLEPT	LSQVNDNLA	0.2338	3983.6	50.00
DRB1_0701	378	DLRTRFRFTVTEDAER	LRTRFRFTVT	0.2336	3992.4	50.00
DRB1_0701	159	VGAPSPLLRGGLAFI	LLRGGLAFI	0.2317	4076.6	50.00
DRB1_0701	512	SVGAGLILGRMAYKE	ILGRMAYKE	0.2306	4126.1	50.00
DRB1_0701	553	VVSKQSRDLKMIQR	VVSKQSRDR	0.2286	4217.1	50.00
DRB1_0701	28	DPRRVGVIVELIDHT	RVGVIVELI	0.2278	4249.9	50.00
DRB1_0701	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.2277	4257.2	50.00
DRB1_0701	573	YREIAEEITRSLTES	IAEEITRSL	0.2270	4290.3	50.00
DRB1_0701	358	ALWQQVLGDGFNDLT	WQQVLGDGF	0.2269	4293.8	50.00
DRB1_0701	587	SLQATIAAAQVAETE	ATIAAAQVA	0.2266	4308.5	50.00
DRB1_0701	3	AGLCAYRDLRRKRAR	LCAYRDLRR	0.2263	4319.2	50.00
DRB1_0701	380	RTRFRFTVTEDAERQI	VTEDAERQI	0.2259	4338.5	50.00
DRB1_0701	160	GAPSPLLRGGLAFID	LLRGGLAFI	0.2256	4351.7	50.00
DRB1_0701	569	LRDHYREIAEEITRS	YREIAEEIT	0.2231	4474.6	50.00
DRB1_0701	455	PHVMGTDFGRLKALG	VMGTDFGRL	0.2222	4516.2	50.00
DRB1_0701	82	KSQLLNSLLNLPAA	LNSLLNLP	0.2221	4522.4	50.00
DRB1_0701	79	KQKSQLNSLLNLP	KSQLLNSLL	0.2202	4616.2	50.00
DRB1_0701	523	AYKEDKQNRLLRVR	YKEDKQNR	0.2191	4669.7	50.00
DRB1_0701	177	GVGGLGQPHLSATLG	GQPHLSATL	0.2191	4671.1	50.00
DRB1_0701	232	TKTDLYPRWREIVNA	LYPRWREIV	0.2189	4683.2	50.00
DRB1_0701	432	LADDVARSFADAGLD	RSFADAGLD	0.2170	4779.0	50.00
DRB1_0701	117	ARLVLAAGPDGTTAA	VLAAGPDGT	0.2166	4800.5	50.00
DRB1_0701	437	ARSFADAGLDSVLSA	FADAGLDSV	0.2161	4825.2	50.00
DRB1_0701	539	AKANVRRFVDDISFV	RRFVDDISF	0.2155	4855.0	50.00
DRB1_0701	146	APHAGGREVLRVEVG	GREVLRVEV	0.2148	4891.8	50.00
DRB1_0701	426	YQRSEALADDVARSF	YQRSEALAD	0.2140	4934.8	50.00
DRB1_0701	604	NRIRELQRQLGILSQ	RIRELQRQL	0.2130	4991.1	50.00

DRB1_0701	279	LNEESNFP AIVKFLS	NFP AIVKFL	0.2123	5028.6	50.00
DRB1_0701	234	TDLYPRWREIVNANA	LYPRWREIV	0.2112	5085.7	50.00
DRB1_0701	345	RRKREAQQAVQQTAL	QQAVQQTAL	0.2102	5141.0	50.00
DRB1_0701	43	IAIAKLNERGDLVQR	KLNERGDLV	0.2097	5173.7	50.00
DRB1_0701	98	GDDEATVVITVVSYS	VVITVVSYS	0.2089	5217.2	50.00
DRB1_0701	341	SDLERRKREAQQAVQ	RKREAQQAV	0.2074	5303.9	50.00
DRB1_0701	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.2071	5319.2	50.00
DRB1_0701	48	LNERGDLVQRLTRAR	LVQRLTRAR	0.2062	5372.7	50.00
DRB1_0701	170	LAFIDTPGVGGLGQP	FIDTPGVGG	0.2060	5385.2	50.00
DRB1_0701	148	HAGGREVLRVEVGAP	GREVLRVEV	0.2059	5389.3	50.00
DRB1_0701	235	LYPRWREIVNANAA	LYPRWREIV	0.2047	5456.7	50.00
DRB1_0701	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.2032	5547.3	50.00
DRB1_0701	268	RSHAVTLNDKELNEE	AVTLNDKEL	0.2025	5591.3	50.00
DRB1_0701	524	YKEDKQNRLLRVRSE	YKEDKQNR	0.2024	5593.7	50.00
DRB1_0701	4	GLCAYRDLRRKRARK	LCAYRDLRR	0.2017	5640.2	50.00
DRB1_0701	348	REAQQAVQQTALWQQ	VQQTALWQQ	0.2005	5714.1	50.00
DRB1_0701	588	LQATIAAAQVAETER	ATIAAAQVA	0.1997	5760.9	50.00
DRB1_0701	513	VGAGLILGRMAYKED	ILGRMAYKE	0.1991	5800.3	50.00
DRB1_0701	161	APSPLLRGGLAFIDT	LLRGGLAFI	0.1963	5978.5	50.00
DRB1_0701	379	LRTRFRVTVEDAERQ	LRTRFRVT	0.1962	5981.8	50.00
DRB1_0701	118	RLVLAAGPDGTTAAV	VLAAGPDGT	0.1961	5991.4	50.00
DRB1_0701	353	AVQQTALWQQVLGDG	QTALWQQVL	0.1960	5995.2	50.00
DRB1_0701	605	RIFELQRQLGILSQV	RIRELQRQL	0.1944	6105.6	50.00
DRB1_0701	438	RSEFADAGLDSVLSAE	FADAGLDSV	0.1943	6110.7	50.00
DRB1_0701	233	KTDLYPRWREIVNAN	LYPRWREIV	0.1943	6110.8	50.00
DRB1_0701	90	LNLPAARVGDDEATV	LNLPAARVG	0.1935	6162.0	50.00
DRB1_0701	425	AYQRSEALADDVARS	RSEALADDV	0.1935	6163.1	50.00
DRB1_0701	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.1932	6179.9	50.00
DRB1_0701	173	IDTPGVGGLGQPPLS	VGGLGQPPL	0.1901	6394.5	50.00
DRB1_0701	381	TRFRVTVEDAERQID	VTEDAERQI	0.1900	6402.8	50.00
DRB1_0701	149	AGGREVLRVEVGAPS	GREVLRVEV	0.1899	6406.2	50.00
DRB1_0701	202	VSDTSQEFTPEPEMWF	VSDTSQEFT	0.1898	6411.9	50.00
DRB1_0701	40	DHTIAIAKLNERGDL	IAIAKLNER	0.1875	6576.0	50.00
DRB1_0701	431	ALADDVARSFADAGL	ARSFADAGL	0.1865	6649.7	50.00
DRB1_0701	92	LPAARVGDDEATVVI	GDDEATVVI	0.1853	6732.6	50.00
DRB1_0701	346	RKREAQQAVQQTALW	QQAVQQTAL	0.1845	6790.2	50.00
DRB1_0701	236	LYPRWREIVNANAAH	LYPRWREIV	0.1831	6893.5	50.00
DRB1_0701	280	NEESNFP AIVKFLSE	NFP AIVKFL	0.1822	6966.1	50.00
DRB1_0701	120	VLAAGPDGTTAAVDI	DGTTAAVDI	0.1819	6985.9	50.00
DRB1_0701	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.1813	7034.7	50.00
DRB1_0701	278	ELNEESNFP AIVKFL	NFP AIVKFL	0.1797	7152.1	50.00
DRB1_0701	488	GSYGGVVMIGMLSSV	VMIGMLSSV	0.1796	7163.5	50.00
DRB1_0701	349	EAQQAVQQTALWQQV	VQQTALWQQ	0.1794	7177.4	50.00
DRB1_0701	119	LVLAAGPDGTTAAVD	VLAAGPDGT	0.1771	7358.8	50.00
DRB1_0701	342	DLERRKREAQQAVQQ	RKREAQQAV	0.1760	7442.9	50.00
DRB1_0701	433	ADDVARSFADAGLDS	RSFADAGLD	0.1754	7497.1	50.00
DRB1_0701	44	AIAKLNERGDLVQRL	KLNERGDLV	0.1752	7507.2	50.00
DRB1_0701	514	GAGLILGRMAYKEDK	ILGRMAYKE	0.1743	7584.6	50.00
DRB1_0701	49	NERGDLVQRLTRARQ	LVQRLTRAR	0.1740	7610.3	50.00
DRB1_0701	365	GDGFNDLTADVHDHL	LTADVHDHL	0.1734	7662.9	50.00
DRB1_0701	592	IAAAQVAETERDNRI	AETERDNRI	0.1728	7706.7	50.00
DRB1_0701	150	GGREVLRVEVGAPSP	GREVLRVEV	0.1725	7733.1	50.00
DRB1_0701	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.1724	7740.9	50.00
DRB1_0701	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.1723	7753.1	50.00
DRB1_0701	618	ARVNDNLAGLEPTLTP	LAGLEPTLT	0.1718	7792.5	50.00
DRB1_0701	95	QNGDDEATVVITVV	EATVVITVV	0.1716	7811.2	50.00
DRB1_0701	162	PSPLLRGGLAFIDTP	LLRGGLAFI	0.1712	7841.9	50.00
DRB1_0701	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.1706	7890.5	50.00
DRB1_0701	269	SHAVTLNDKELNEES	AVTLNDKEL	0.1683	8095.9	50.00
DRB1_0701	487	RGSYGGVVMIGMLSS	VVMIGMLSS	0.1681	8114.8	50.00
DRB1_0701	147	PHAGGREVLRVEVGA	GREVLRVEV	0.1665	8248.7	50.00
DRB1_0701	427	QRSEALADDVARSA	RSEALADDV	0.1663	8271.6	50.00
DRB1_0701	94	AARVGDDEATVVITV	GDDEATVVI	0.1656	8332.6	50.00
DRB1_0701	303	RVRAGVLGEIRSATE	LGEIRSATE	0.1650	8384.7	50.00
DRB1_0701	174	DTPGVGGLGQPPLSA	VGGLGQPPL	0.1635	8522.0	50.00
DRB1_0701	12	RRKRARKWGDVTQPD	RKRARKWGD	0.1634	8536.4	50.00
DRB1_0701	96	RVGDDEATVVITVVS	ATVVITVVS	0.1632	8555.7	50.00
DRB1_0701	13	RKRARKWGDVTQPD	RKRARKWGD	0.1627	8601.1	50.00
DRB1_0701	595	AQVAETERDNRIREL	AETERDNRI	0.1620	8664.4	50.00
DRB1_0701	589	QATIAAAQVAETERD	ATIAAAQVA	0.1610	8760.9	50.00

DRB1_0701	593	AAAQVAETERDNRIR	AETERDNRI	0.1606	8800.4	50.00
DRB1_0701	537	SEAKANVRRFVDDIS	NVRRFVDDI	0.1601	8844.8	50.00
DRB1_0701	121	LAAGTVDGTTAAVDIP	DGTTAAVDI	0.1595	8903.2	50.00
DRB1_0701	382	RFRTPTEDAERQIDS	VTEDAERQI	0.1582	9025.6	50.00
DRB1_0701	281	EESNFPAIVKFLSEQ	NFPAIVKFL	0.1579	9055.9	50.00
DRB1_0701	91	NLPAARVGDDEATVV	VGDDEATVV	0.1565	9196.3	50.00
DRB1_0701	93	PAARVGDDEATVVIT	GDDEATVVI	0.1560	9243.7	50.00
DRB1_0701	144	RRAPHAGGREVLRVE	APHAGGREV	0.1559	9251.2	50.00
DRB1_0701	163	SPLLRRGGLAFIDTPG	LLRGGLAFI	0.1553	9313.3	50.00
DRB1_0701	45	IAKLNERGDLVQRLT	KLNERGDLV	0.1548	9369.7	50.00
DRB1_0701	606	IRELQRQLGILSQVN	QLGILSQVN	0.1544	9409.9	50.00
DRB1_0701	302	ERVRRAGVLGEIRSAT	VRAGVLGEI	0.1536	9490.6	50.00
DRB1_0701	430	EALADDVARSFADAG	VARSFADAG	0.1535	9498.3	50.00
DRB1_0701	515	AGLILGRMAYKEDKQ	ILGRMAYKE	0.1530	9554.7	50.00
DRB1_0701	347	KREAQQAVQQTALWQ	QQAVQQTAL	0.1529	9563.9	50.00
DRB1_0701	620	NDNLAGLEPTLTPRA	LEPTLTPRA	0.1522	9630.0	50.00
DRB1_0701	502	VVRLGLFNPLSVGAG	LGLFNPLSV	0.1493	9945.5	50.00
DRB1_0701	343	LERRKREAQQAVQQT	RKREAQQAV	0.1486	10017.8	50.00
DRB1_0701	46	AKLNERGDLVQRLTR	KLNERGDLV	0.1484	10041.3	50.00
DRB1_0701	619	VNDNLAGLEPTLTPR	LAGLEPTLT	0.1480	10082.6	50.00
DRB1_0701	428	RSEALADDVARSFAD	RSEALADDV	0.1480	10083.0	50.00
DRB1_0701	516	GLILGRMAYKEDKQN	ILGRMAYKE	0.1476	10124.7	50.00
DRB1_0701	97	VGDDEATVVITVVS	TVVITVVS	0.1468	10214.5	50.00
DRB1_0701	270	HAVTLNDKELNEESN	AVTLNDKEL	0.1458	10326.4	50.00
DRB1_0701	275	NDKELNEESNFPAIV	EESNFPAIV	0.1457	10335.4	50.00
DRB1_0701	594	AAQVAETERDNRIRE	AETERDNRI	0.1455	10359.2	50.00
DRB1_0701	366	DGFNDLTADVHDHDLR	LTADVHDHDL	0.1445	10468.6	50.00
DRB1_0701	596	QVAETERDNRIRELQ	AETERDNRI	0.1445	10470.9	50.00
DRB1_0701	175	TPGVGGLGQPHLSAT	VGGLGQPHL	0.1426	10691.3	50.00
DRB1_0701	597	VAETERDNRIRELQR	AETERDNRI	0.1405	10934.1	50.00
DRB1_0701	344	ERRKREAQQAVQQT	RKREAQQAV	0.1398	11013.9	50.00
DRB1_0701	14	KRARKWGDVTVTQDD	RARKWGDVT	0.1397	11024.4	50.00
DRB1_0701	273	TLNDKELNEESNFPA	LNEESNFPA	0.1378	11253.9	50.00
DRB1_0701	362	QVLGDGFNDLTADV	FNDLTADV	0.1374	11300.8	50.00
DRB1_0701	621	DNLAGLEPTLTPRAS	LAGLEPTLT	0.1374	11311.1	50.00
DRB1_0701	397	CDPTAHWAEIGNDVE	WAEIGNDVE	0.1373	11323.4	50.00
DRB1_0701	391	ERQIDSCDPTAHWAE	CDPTAHWAE	0.1367	11394.3	50.00
DRB1_0701	304	VRAGVLGEIRSATEQ	LGEIRSATE	0.1365	11420.7	50.00
DRB1_0701	517	LILGRMAYKEDKQNR	ILGRMAYKE	0.1365	11421.4	50.00
DRB1_0701	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.1345	11672.2	50.00
DRB1_0701	607	RELQRQLGILSQVND	QLGILSQVN	0.1337	11767.6	50.00
DRB1_0701	47	KLNERGDLVQRLTRA	KLNERGDLV	0.1336	11787.0	50.00
DRB1_0701	590	ATIAAQVAETERDN	ATIAAQVA	0.1324	11934.1	50.00
DRB1_0701	383	FRTVTEDAERQIDSC	VTEDAERQI	0.1323	11946.7	50.00
DRB1_0701	554	VSKQSRDRCLKMIQRL	QSRDRCLKMI	0.1305	12185.0	50.00
DRB1_0701	598	AETERDNRIRELQRQ	AETERDNRI	0.1291	12372.3	50.00
DRB1_0701	24	TQPDDPRRVGVIVEL	RRVGVIVEL	0.1281	12510.0	50.00
DRB1_0701	608	ELQRQLGILSQVNDN	QLGILSQVN	0.1269	12663.5	50.00
DRB1_0701	271	AVTLNDKELNEESNF	AVTLNDKEL	0.1257	12833.3	50.00
DRB1_0701	15	RARKWGDVTVTQDDP	RARKWGDVT	0.1250	12936.3	50.00
DRB1_0701	392	RQIDSCDPTAHWAEI	CDPTAHWAE	0.1249	12939.7	50.00
DRB1_0701	129	TAAVDIPVDDISTDV	PVDDISTDV	0.1233	13174.0	50.00
DRB1_0701	276	DKELNEESNFPAIVK	LNEESNFPA	0.1229	13221.7	50.00
DRB1_0701	274	LNDKELNEESNFPAI	LNEESNFPA	0.1227	13259.0	50.00
DRB1_0701	370	DLTADVHDHLRTRFR	VDHLRTRFR	0.1224	13299.3	50.00
DRB1_0701	363	VLGDGFNDLTADV	FNDLTADV	0.1211	13481.8	50.00
DRB1_0701	396	SCDPTAHWAEIGNDV	HWAEIGNDV	0.1209	13512.7	50.00
DRB1_0701	367	GFNDLTADVHDHLRT	LTADVHDHL	0.1180	13945.2	50.00
DRB1_0701	18	KWGDVTVTQDDPRRV	TQPDDPRRV	0.1179	13961.7	50.00
DRB1_0701	369	NDLTADVHDHLRTRF	VDHLRTRF	0.1177	13992.4	50.00
DRB1_0701	23	VTQPDDPRRVGVIVE	PRRVGVIVE	0.1174	14040.2	50.00
DRB1_0701	130	AAVDIPVDDISTDVR	PVDDISTDV	0.1162	14221.3	50.00
DRB1_0701	385	TVEDAERQIDSCDP	VTEDAERQI	0.1117	14933.6	50.00
DRB1_0701	277	KELNEESNFPAIVKF	LNEESNFPA	0.1111	15026.2	50.00
DRB1_0701	371	LTADVHDHLRTRFR	VDHLRTRF	0.1108	15077.2	50.00
DRB1_0701	393	QIDSCDPTAHWAEIG	CDPTAHWAE	0.1090	15369.7	50.00
DRB1_0701	384	RTVTEDAERQIDSCD	VTEDAERQI	0.1076	15602.1	50.00
DRB1_0701	386	VTEDAERQIDSCDPT	VTEDAERQI	0.1043	16168.0	50.00
DRB1_0701	135	PVDDISTDVRRAPHA	TDVRRAPHA	0.1020	16584.5	50.00
DRB1_0701	19	WGDTVTQDDPRRVG	TQPDDPRRV	0.1016	16649.3	50.00

DRB1_0701	591	TIAAAQVAETERDNR	IAAAQVAET	0.1008	16801.4	50.00
DRB1_0701	368	FNDLTADVVDHDLRTR	LTADVVDHDL	0.0985	17226.5	50.00
DRB1_0701	22	TVTQPDDPRRVGVIV	TQPDDPRRV	0.0971	17483.4	50.00
DRB1_0701	339	LASDLERRKREAQQA	RRKREAQQA	0.0968	17534.7	50.00
DRB1_0701	21	LDVTQPDDPRRVGVIV	TQPDDPRRV	0.0962	17659.4	50.00
DRB1_0701	20	GDTVTVTQPDDPRRVGV	TQPDDPRRV	0.0959	17719.5	50.00
DRB1_0701	429	SEALADDVARSFADA	LADDVARSF	0.0959	17723.1	50.00
DRB1_0701	398	DPTAHWAEIGNDVEN	WAEIGNDVE	0.0948	17922.9	50.00
DRB1_0701	131	AVDIPVDDISTDVRR	PVDDISTDV	0.0937	18149.7	50.00
DRB1_0701	394	IDSCPPTAHWAEIGN	CDPTAHWAE	0.0923	18419.5	50.00
DRB1_0701	132	VDCIPVDDISTDVRR	DISTDVRR	0.0923	18423.9	50.00
DRB1_0701	395	DSCDPTAHWAEIGND	CDPTAHWAE	0.0905	18776.5	50.00
DRB1_0701	361	QQVLGDGFNDLTADV	VLGDGFNDL	0.0882	19257.1	50.00
DRB1_0701	364	LGDFGNDLTADVVDH	FNDLTADV	0.0877	19359.1	50.00
DRB1_0701	17	RKWGDTVTQPDDPRR	VTQPDDPRR	0.0863	19660.3	50.00
DRB1_0701	401	AHWAEIGNDVENAIA	GNDVENAIA	0.0862	19666.0	50.00
DRB1_0701	136	VDDISTDVRRAPHAG	TDVRRAPHA	0.0860	19707.6	50.00
DRB1_0701	328	SVVNDPNLRDRLASD	VVNDPNLRD	0.0798	21079.1	50.00
DRB1_0701	400	TAHWAEIGNDVENAI	WAEIGNDVE	0.0797	21113.3	50.00
DRB1_0701	133	DIPVDDISTDVRRAP	DISTDVRR	0.0787	21340.9	50.00
DRB1_0701	399	PTAHWAEIGNDVENA	WAEIGNDVE	0.0785	21380.9	50.00
DRB1_0701	402	HWAEIGNDVENAIAT	GNDVENAIA	0.0782	21460.4	50.00
DRB1_0701	390	AERQIDSCDPTAHWA	IDSCDPTAH	0.0744	22362.8	50.00
DRB1_0701	272	VTLNKELNEESNFP	ELNEESNFP	0.0737	22532.6	50.00
DRB1_0701	388	EDAERQIDSCDPTAH	ELSCDPTAH	0.0705	23320.1	50.00
DRB1_0701	134	IPVDDISTDVRRAPH	PVDDISTDV	0.0703	23373.9	50.00
DRB1_0701	337	DRLASDLERRKREAQ	LERRKREAQ	0.0699	23464.9	50.00
DRB1_0701	389	DAERQIDSCDPTAHW	IDSCDPTAH	0.0699	23479.6	50.00
DRB1_0701	16	ARKWGDTVTQPDDPR	WGDTVTQPD	0.0690	23693.7	50.00
DRB1_0701	336	RDLASDLERRKREA	DRLASDLER	0.0658	24525.0	50.00
DRB1_0701	525	KEDQNRLLRVRSEA	RLLRVRSEA	0.0643	24931.7	50.00
DRB1_0701	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.0628	25330.8	50.00
DRB1_0701	450	SAELSPHVMGTFDFGR	HVMGTFDFGR	0.0598	26183.8	50.00
DRB1_0701	403	WAEIGNDVENAIATA	GNDVENAIA	0.0558	27341.9	50.00
DRB1_0701	338	RLASDLERRKREAQQ	ERRKREAQQ	0.0556	27385.7	50.00

Allele: DRB1_0701. Number of high binders 95. Number of weak binders 168. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0802	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.7375	17.1	SB	0.15
DRB1_0802	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.7333	17.9	SB	0.20
DRB1_0802	558	SRDRLKMIQRLLRDH	RLKMIQRLL	0.7192	20.9	SB	0.30
DRB1_0802	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.7182	21.1	SB	0.30
DRB1_0802	6	CAYRDLRRKRARKWG	LRRKRARKW	0.7044	24.5	SB	0.40
DRB1_0802	557	QSRDLKMIQRLLRD	RLKMIQRLL	0.7023	25.1	SB	0.40
DRB1_0802	52	GDVLVQRLTRARQRI	LVQRLTRAR	0.7002	25.6	SB	0.40
DRB1_0802	54	LDVQRLTRARQRITDP	LVQRLTRAR	0.6988	26.0	SB	0.40
DRB1_0802	53	DLVQRLTRARQRITD	LVQRLTRAR	0.6969	26.6	SB	0.40
DRB1_0802	556	KQSRDLKMIQRLLR	RLKMIQRLL	0.6950	27.1	SB	0.40
DRB1_0802	7	AYRDLRRKRARKWGD	YRDLRRKRA	0.6944	27.3	SB	0.40
DRB1_0802	8	YRDLRRKRARKWGDT	YRDLRRKRA	0.6800	31.9	SB	0.80
DRB1_0802	462	FGRLLKALGRMESKPL	RLKALGRME	0.6768	33.0	SB	0.80
DRB1_0802	463	GRLKALGRMESKPLR	RLKALGRME	0.6749	33.7	SB	0.80
DRB1_0802	459	GTFDFGRLLKALGRMES	RLKALGRME	0.6738	34.1	SB	0.80
DRB1_0802	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.6723	34.7	SB	0.80
DRB1_0802	461	DFGRLKALGRMESKP	RLKALGRME	0.6719	34.8	SB	0.80
DRB1_0802	460	TDFGRLKALGRMESK	RLKALGRME	0.6603	39.5	SB	0.80
DRB1_0802	212	PEMWFVRQAHQICPV	WFVVRQAHQI	0.6482	45.0	SB	1.00
DRB1_0802	213	PEMWFVRQAHQICPV	WFVVRQAHQI	0.6460	46.0	SB	2.00
DRB1_0802	9	RDLRRKRARKWGDV	LRRKRARKW	0.6457	46.2	SB	2.00
DRB1_0802	5	LCAYRDLRRKRARKW	AYRDLRRKR	0.6355	51.6	WB	2.00
DRB1_0802	211	EPFMWFVRQAHQICP	WFVVRQAHQI	0.6323	53.4	WB	2.00
DRB1_0802	55	VQRLTRARQRITDPQ	RLTRARQRI	0.6286	55.6	WB	2.00
DRB1_0802	10	DLRRKRARKWGDVTV	LRRKRARKW	0.6260	57.2	WB	2.00
DRB1_0802	464	RLKALGRMESKPLRR	RLKALGRME	0.6194	61.4	WB	2.00
DRB1_0802	50	ERGDVLVQRLTRARQR	LVQRLTRAR	0.6167	63.2	WB	2.00

DRB1_0802	602	RDNRIRELQRQLGIL	RIRELQRQL	0.6150	64.4	WB	2.00
DRB1_0802	458	MGTDFGRLKALGRME	RLKALGRME	0.6121	66.5	WB	2.00
DRB1_0802	210	TEPEMWFVRQAHQIC	WFVRQAHQI	0.6076	69.8	WB	2.00
DRB1_0802	601	ERDNRIRELQRQLGI	RIRELQRQL	0.6015	74.6	WB	4.00
DRB1_0802	11	LRKRARKWGDVTVTQ	RRKRARKWG	0.6000	75.8	WB	4.00
DRB1_0802	214	MWFVRQAHQICPVGA	WFVRQAHQI	0.5908	83.7	WB	4.00
DRB1_0802	49	NERGDLVQRLTRARQ	LVQRLTRAR	0.5889	85.4	WB	4.00
DRB1_0802	603	DNRIRELQRQLGILS	RIRELQRQL	0.5855	88.6	WB	4.00
DRB1_0802	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.5841	90.0	WB	4.00
DRB1_0802	71	RVVIAGLLKQGKSQ	RVVIAGLLK	0.5825	91.6	WB	4.00
DRB1_0802	604	NRVIRELQRQLGILSQ	RIRELQRQL	0.5776	96.6	WB	4.00
DRB1_0802	600	TERDNRIRELQRQLG	RIRELQRQL	0.5736	100.9	WB	4.00
DRB1_0802	555	SKQSRDLKMIQRL	RLKMIQRL	0.5723	102.3	WB	4.00
DRB1_0802	528	KQNRLLRVRSEAKAN	KQNRLLRVR	0.5652	110.4	WB	4.00
DRB1_0802	420	DNFVWAYQRSEALAD	FVWAYQRSE	0.5648	110.9	WB	4.00
DRB1_0802	421	NFVWAYQRSEALADD	FVWAYQRSE	0.5636	112.3	WB	4.00
DRB1_0802	605	RINELQRQLGILSQV	RIRELQRQL	0.5622	114.1	WB	4.00
DRB1_0802	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.5595	117.5	WB	4.00
DRB1_0802	377	HDLRTRFRFTVTEAE	LRTRFRFTVT	0.5572	120.4	WB	4.00
DRB1_0802	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.5557	122.4	WB	4.00
DRB1_0802	378	DLRTRFRFTVTEAER	LRTRFRFTVT	0.5513	128.4	WB	4.00
DRB1_0802	57	RLTRARQRITDPQVR	RLTRARQRI	0.5472	134.2	WB	8.00
DRB1_0802	379	LDRTRFRFTVTEAERQ	LRTRFRFTVT	0.5463	135.5	WB	8.00
DRB1_0802	376	HDHLRTRFRFTVTEA	LRTRFRFTVT	0.5428	140.7	WB	8.00
DRB1_0802	3	AGLCAYRDLRRKRAR	YRDLRRKRA	0.5403	144.6	WB	8.00
DRB1_0802	474	KPLRRGHKMIIGMRG	PLRRGHKMI	0.5386	147.2	WB	8.00
DRB1_0802	527	DKQNRLLRVRSEAKA	KQNRLLRVR	0.5381	148.0	WB	8.00
DRB1_0802	260	IIAVSSLLRSHAVTL	IIAVSSLLR	0.5349	153.2	WB	8.00
DRB1_0802	475	PLRRGHKMIIGMRGS	PLRRGHKMI	0.5325	157.4	WB	8.00
DRB1_0802	473	SKPLRRGHKMIIGMR	PLRRGHKMI	0.5322	157.8	WB	8.00
DRB1_0802	471	MESKPLRRGHKMIIG	PLRRGHKMI	0.5310	159.9	WB	8.00
DRB1_0802	422	FVWAYQRSEALADDV	FVWAYQRSE	0.5301	161.4	WB	8.00
DRB1_0802	480	HKMIIGMRGSYGGVV	HKMIIGMRG	0.5299	161.8	WB	8.00
DRB1_0802	70	VRVVIAGLLKQGKSQ	RVVIAGLLK	0.5277	165.7	WB	8.00
DRB1_0802	529	QNRLLRVRSEAKANV	RLLRVRSEA	0.5274	166.2	WB	8.00
DRB1_0802	531	RLLRVRSEAKANVRR	RLLRVRSEA	0.5270	167.0	WB	8.00
DRB1_0802	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.5263	168.2	WB	8.00
DRB1_0802	56	QRLTRARQRITDPQV	RLTRARQRI	0.5257	169.4	WB	8.00
DRB1_0802	479	GHKMIIGMRGSYGGV	HKMIIGMRG	0.5250	170.6	WB	8.00
DRB1_0802	284	NFPAIVKFLSEQVLS	FPAIVKFLS	0.5210	178.2	WB	8.00
DRB1_0802	418	VGDNFVWAYQRSEAL	FVWAYQRSE	0.5179	184.2	WB	8.00
DRB1_0802	48	LNERGDLVQRLTRAR	LVQRLTRAR	0.5154	189.4	WB	8.00
DRB1_0802	469	GRMESKPLRRGHKMI	GRMESKPLR	0.5135	193.2	WB	8.00
DRB1_0802	72	VVIAGLLKQGKSQ	VIAGLLKQ	0.5129	194.6	WB	8.00
DRB1_0802	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.5118	196.8	WB	8.00
DRB1_0802	261	IAVSSLLRSHAVTLN	AVSSLLRSH	0.5113	197.8	WB	8.00
DRB1_0802	478	RGHKMIIGMRGSYGG	HKMIIGMRG	0.5097	201.3	WB	8.00
DRB1_0802	530	NRLLRVRSEAKANVR	RLLRVRSEA	0.5079	205.2	WB	8.00
DRB1_0802	283	SNFPAIVKFLSEQVL	FPAIVKFLS	0.5077	205.8	WB	8.00
DRB1_0802	470	RMESKPLRRGHKMI I	PLRRGHKMI	0.5074	206.4	WB	8.00
DRB1_0802	599	ETERDNRIRELQRQL	RIRELQRQL	0.5072	206.7	WB	8.00
DRB1_0802	259	PIIAVSSLLRSHAVT	PIIAVSSLL	0.5071	207.1	WB	8.00
DRB1_0802	472	ESKPLRRGHKMI IGM	PLRRGHKMI	0.5042	213.6	WB	8.00
DRB1_0802	2	PAGLCAYRDLRRKRA	YRDLRRKRA	0.5017	219.6	WB	8.00
DRB1_0802	12	RRKRARKWGDVTVTP	RRKRARKWG	0.4979	228.8	WB	8.00
DRB1_0802	69	QVRVVIAGLLKQGKS	RVVIAGLLK	0.4942	238.0	WB	8.00
DRB1_0802	262	AVSSLLRSHAVTLND	AVSSLLRSH	0.4930	241.2	WB	8.00
DRB1_0802	248	AAHLQARARVPMPIIA	HLQARARVPM	0.4928	241.8	WB	8.00
DRB1_0802	249	AHLQARARVPMPIIAV	HLQARARVPM	0.4920	243.8	WB	8.00
DRB1_0802	282	ESNFPAIVKFLSEQV	FPAIVKFLS	0.4893	251.0	WB	8.00
DRB1_0802	477	RRGHKMIIGMRGSYG	HKMIIGMRG	0.4893	251.1	WB	8.00
DRB1_0802	375	VDHLRTRFRFTVTE	LRTRFRFTVT	0.4841	265.7	WB	16.00
DRB1_0802	247	NAHLQARARVPMPII	HLQARARVPM	0.4823	270.9	WB	16.00
DRB1_0802	492	GVVMIGMLSSVVLG	GVVMIGMLS	0.4797	278.6	WB	16.00
DRB1_0802	457	VMGTDFGRLKALGRM	DFGRLKALG	0.4788	281.4	WB	16.00
DRB1_0802	68	PQVRVVIAGLLKQGK	RVVIAGLLK	0.4770	286.9	WB	16.00
DRB1_0802	526	EDKQNRLLRVRSEAK	KQNRLLRVR	0.4766	288.2	WB	16.00
DRB1_0802	285	FPAIVKFLSEQVLSR	FPAIVKFLS	0.4760	289.9	WB	16.00
DRB1_0802	417	AVGDNFVWAYQRSEA	FVWAYQRSE	0.4758	290.5	WB	16.00
DRB1_0802	73	VIAGLLKQGKSQ	VIAGLLKQ	0.4728	300.0	WB	16.00

DRB1_0802	374	DVDHDLRTRFRFTVTE	LRTRFRFTVT	0.4692	312.0	WB	16.00
DRB1_0802	105	VITVVSYSQAQPSARL	VITVVSYSQA	0.4690	312.7	WB	16.00
DRB1_0802	495	MIGLSSVVGLGLFN	IGLSSVVVG	0.4688	313.4	WB	16.00
DRB1_0802	476	LRRLGKMIIGMRGSY	HKMIIGMRG	0.4685	314.3	WB	16.00
DRB1_0802	258	MPIIAVSSLLRSHAV	IIAVSSLLR	0.4645	328.5	WB	16.00
DRB1_0802	515	AGLILGRMAYKEDKQ	AGLILGRMA	0.4604	343.1	WB	16.00
DRB1_0802	250	HLQRRARVPMPIIAVS	HLQRRARVPM	0.4599	345.3	WB	16.00
DRB1_0802	246	ANAAHLQRRARVPMPI	HLQRRARVPM	0.4589	348.7	WB	16.00
DRB1_0802	481	KMIIGMRGSYGGVVM	KMIIGMRGS	0.4558	360.8	WB	16.00
DRB1_0802	494	VMIGLSSVVGLGLF	IGLSSVVVG	0.4520	376.0	WB	16.00
DRB1_0802	493	VVMIGLSSVVGLGL	IGLSSVVVG	0.4517	377.3	WB	16.00
DRB1_0802	512	SVGAGLILGRMAYKE	GLILGRMAY	0.4504	382.4	WB	16.00
DRB1_0802	468	LGRMESKPLRRGHKM	MESKPLRRG	0.4478	393.5	WB	16.00
DRB1_0802	514	GAGLILGRMAYKEDK	AGLILGRMA	0.4464	399.4	WB	16.00
DRB1_0802	525	KEDKQNRLLRVRSEA	KQNRLLRVR	0.4464	399.5	WB	16.00
DRB1_0802	106	ITVVSYSQAQPSARLV	VVSYSQAQPS	0.4454	403.9	WB	16.00
DRB1_0802	416	TAVGDNFVWAYQRSE	FVWAYQRSE	0.4440	409.9	WB	16.00
DRB1_0802	550	ISFVVSQSRDRLKM	ISFVVSQSQS	0.4398	429.0	WB	16.00
DRB1_0802	281	EESNFPAIVKFLSEQ	FPAIVKFLS	0.4397	429.4	WB	16.00
DRB1_0802	496	IGLSSVVGLGLFNFP	IGLSSVVVG	0.4393	431.3	WB	16.00
DRB1_0802	67	DPQVRVVIAGLLKQG	RVVIAGLLK	0.4381	436.9	WB	16.00
DRB1_0802	107	TVVSYSQAQPSARLVL	VVSYSQAQPS	0.4376	439.4	WB	16.00
DRB1_0802	491	GGVVMIGLSSVVGL	MIGLSSVV	0.4366	443.8	WB	16.00
DRB1_0802	139	ISTDVRRAPHAGGRE	ISTDVRRAP	0.4363	445.5	WB	16.00
DRB1_0802	138	DISTDVRRAPHAGGR	ISTDVRRAP	0.4361	446.6	WB	16.00
DRB1_0802	373	ADVVDHDLRTRFRFTVT	LRTRFRFTVT	0.4325	464.1	WB	16.00
DRB1_0802	465	LKALGRMESKPLRRG	LKALGRMES	0.4305	474.3	WB	16.00
DRB1_0802	513	VGAGLILGRMAYKED	GLILGRMAY	0.4304	475.1	WB	16.00
DRB1_0802	257	PMPPIIAVSSLLRSHA	IIAVSSLLR	0.4284	485.3	WB	16.00
DRB1_0802	245	NANAHLQRRARVPM	HLQRRARVPM	0.4269	493.0	WB	16.00
DRB1_0802	287	AIKFLSEQVLSRAT	IVKFLSEQV	0.4247	505.0		16.00
DRB1_0802	280	NEESNFPAIVKFLSE	FPAIVKFLS	0.4228	515.8		16.00
DRB1_0802	456	HVMGTDFGRLKALGR	GTDFGRLKA	0.4227	516.3		16.00
DRB1_0802	104	VVITVVSYSQAQPSAR	VITVVSYSQA	0.4202	530.4		16.00
DRB1_0802	85	LLNSLLNLPAAARVGD	LLNSLLNLP	0.4182	542.0		16.00
DRB1_0802	510	PLSVGAGLILGRMAY	GLILGRMAY	0.4167	550.9		16.00
DRB1_0802	511	LSVGAGLILGRMAYK	GLILGRMAY	0.4148	562.2		16.00
DRB1_0802	490	YGGVVMIGLSSVVG	MIGLSSVV	0.4145	563.7		16.00
DRB1_0802	84	QLNSLLNLPAAARVG	LLNSLLNLP	0.4122	578.3		16.00
DRB1_0802	467	ALGRMESKPLRRGHK	MESKPLRRG	0.4109	586.3		16.00
DRB1_0802	482	MIIGMRGSYGGVVM	MIIGMRGSY	0.4108	586.7		16.00
DRB1_0802	263	VSSLLRSHAVTLNDK	VSSLLRSHA	0.4091	598.1		32.00
DRB1_0802	108	VVSYSQAQPSARLVLA	VVSYSQAQPS	0.4081	604.1		32.00
DRB1_0802	137	DDISTDVRRAPHAGG	ISTDVRRAP	0.4079	605.9		32.00
DRB1_0802	549	DISFVVSQSRDRLK	ISFVVSQSQS	0.4055	622.0		32.00
DRB1_0802	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.4033	636.3		32.00
DRB1_0802	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.4029	639.7		32.00
DRB1_0802	279	LNEESNFPAIVKFLS	FPAIVKFLS	0.3991	666.6		32.00
DRB1_0802	235	DLYPRWREIVNANA	LYPRWREIV	0.3989	667.7		32.00
DRB1_0802	47	KLNERGDLVQRLTRA	RGDLVQRLT	0.3982	672.8		32.00
DRB1_0802	504	GLGLFNPLSVGAGLI	GLGLFNPLS	0.3957	691.2		32.00
DRB1_0802	524	YKEDKQNRLLRVRSE	KQNRLLRVR	0.3932	710.4		32.00
DRB1_0802	74	IAGLLKQGKSQLLNS	GLLKQGKSQ	0.3917	721.5		32.00
DRB1_0802	288	IVKFLSEQVLSRATE	IVKFLSEQV	0.3911	726.7		32.00
DRB1_0802	516	GLILGRMAYKEDKQN	GLILGRMAY	0.3869	760.1		32.00
DRB1_0802	296	VLSRATERVVRAGVLG	VLSRATERV	0.3867	761.9		32.00
DRB1_0802	455	PHVMGTDFGRLKALG	GTDFGRLKA	0.3867	762.0		32.00
DRB1_0802	551	SFVVSQSRDRLKMI	SFVVSQSR	0.3864	764.0		32.00
DRB1_0802	466	KALGRMESKPLRRGH	GRMESKPLR	0.3857	770.3		32.00
DRB1_0802	103	TVVITVVSYSQAQPSA	VITVVSYSQA	0.3853	773.7		32.00
DRB1_0802	548	DDISFVVSQSRDRL	ISFVVSQSQS	0.3812	808.8		32.00
DRB1_0802	234	TDLYPRWREIVNANA	LYPRWREIV	0.3809	811.4		32.00
DRB1_0802	83	QLNSLLNLPAAARV	LLNSLLNLP	0.3781	835.9		32.00
DRB1_0802	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.3764	851.6		32.00
DRB1_0802	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.3751	863.3		32.00
DRB1_0802	486	MGRSYGGVVMIGMLS	GVVMIGMLS	0.3746	868.5		32.00
DRB1_0802	503	VGLGLFNPLSVGAGL	GLGLFNPLS	0.3742	872.4		32.00
DRB1_0802	502	VVGLGLFNPLSVGAG	GLGLFNPLS	0.3736	877.8		32.00
DRB1_0802	66	TDPQVRVVIAGLLKQ	RVVIAGLLK	0.3735	878.5		32.00
DRB1_0802	154	VLRVEVGAPSPLLRG	LRVEVGAPS	0.3711	902.0		32.00

DRB1_0802	487	RGSYGGVVMIGMLSS	GVVMIGMLS	0.3702	911.2	32.00
DRB1_0802	523	AYKEDKQNRLLRVRS	KQNRLLRVR	0.3695	917.6	32.00
DRB1_0802	498	MLSSVVGLGLFNPLS	MLSSVVGLG	0.3694	919.0	32.00
DRB1_0802	76	GLLKQGKSQLLNSLL	GLLKQGKSQ	0.3689	924.1	32.00
DRB1_0802	489	SYGGVVMIGMLSSV	GVVMIGMLS	0.3686	926.8	32.00
DRB1_0802	244	VNANAHLQRRVPM	HLQRRVPM	0.3686	927.0	32.00
DRB1_0802	553	VVSKQSRDRKMIQR	VVSKQSRDR	0.3684	928.4	32.00
DRB1_0802	65	ITDPQVRVVIAGLLK	RVVIAGLLK	0.3683	930.1	32.00
DRB1_0802	236	LYPRWREIVNANAHL	LYPRWREIV	0.3672	941.2	32.00
DRB1_0802	256	VPMPPIIAVSSLLRSH	IIAVSSLLR	0.3671	941.6	32.00
DRB1_0802	423	VWAYQRSEALADDVA	WAYQRSEAL	0.3640	973.6	32.00
DRB1_0802	1	VPAGLCAYRDLRRKR	AYRDLRRKR	0.3629	985.4	32.00
DRB1_0802	81	GKSQLLNSLLNLPAA	LNSLLNLPAA	0.3623	992.0	32.00
DRB1_0802	293	SEQVLSRATERVRAG	LSRATERVR	0.3614	1001.9	32.00
DRB1_0802	155	LRVEVGAPSPLLRGG	RVEVGAPSP	0.3602	1015.2	32.00
DRB1_0802	58	LTRARQRITDPQVRV	LTRARQRIT	0.3600	1017.5	32.00
DRB1_0802	82	KMIQLLNSLLNLPAA	LNSLLNLPAA	0.3594	1023.9	32.00
DRB1_0802	563	KMIQRLLRDHYREIA	MIQRLLRDH	0.3581	1037.9	32.00
DRB1_0802	297	LSRATERVRAGVLGE	RATERVRAG	0.3578	1041.8	32.00
DRB1_0802	102	ATVVITVVSYSQAQPS	VITVVSYSQA	0.3573	1046.8	32.00
DRB1_0802	305	RAGVLGEIRSATEQL	VLGEIRSAT	0.3555	1067.5	32.00
DRB1_0802	547	VDDISFVVSKQSRDR	ISFVVSKQS	0.3551	1072.1	32.00
DRB1_0802	233	KTDLYPRWREIVNAN	LYPRWREIV	0.3551	1072.3	32.00
DRB1_0802	380	RTRFRTVTEDAERQI	RTRFRTVTE	0.3548	1075.7	32.00
DRB1_0802	208	EFTEPEMWFVRQAHQ	PEMWFVRQA	0.3539	1087.0	32.00
DRB1_0802	307	GVLGEIRSATEQLAV	VLGEIRSAT	0.3537	1089.0	32.00
DRB1_0802	606	IRELQRQLGILSQVN	IRELQRQLG	0.3517	1112.0	32.00
DRB1_0802	295	QVLSRATERVRAGVL	LSRATERVR	0.3516	1113.5	32.00
DRB1_0802	497	GMLSSVVGLGLFNPL	MLSSVVGLG	0.3513	1117.3	32.00
DRB1_0802	75	AGLLKQGKSQLLNSL	GLLKQGKSQ	0.3500	1133.4	32.00
DRB1_0802	488	GSYGGVVMIGMLSSV	GVVMIGMLS	0.3452	1193.2	32.00
DRB1_0802	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.3445	1202.6	32.00
DRB1_0802	232	TKTDLYPRWREIVNA	LYPRWREIV	0.3440	1209.2	32.00
DRB1_0802	554	VSKQSRDRKMIQRL	RDRLKMIQR	0.3429	1223.9	32.00
DRB1_0802	109	VSYSAQPSARLVLA	YSAQPSARL	0.3421	1234.4	32.00
DRB1_0802	255	RVPMPPIIAVSSLLRS	IIAVSSLLR	0.3411	1248.2	32.00
DRB1_0802	153	EVLPRVEVGAPSPLLR	LRVEVGAPS	0.3392	1273.5	32.00
DRB1_0802	533	LRVRSEAKANVRRFV	LRVRSEAKA	0.3387	1280.1	32.00
DRB1_0802	140	STDVRRAPHAGGREV	TDVRRAPHA	0.3387	1280.7	32.00
DRB1_0802	294	EQVLSRATERVRAGV	LSRATERVR	0.3383	1286.8	32.00
DRB1_0802	46	AKLNERGDLVQRLTR	GDLVQRLTR	0.3371	1303.5	32.00
DRB1_0802	501	SVVGLGLFNPLSVGA	GLGLFNPLS	0.3368	1306.8	32.00
DRB1_0802	80	VQDSQLLNSLLNLPAA	LNSLLNLPAA	0.3356	1323.8	32.00
DRB1_0802	136	VDDISTDVRRAPHAG	ISTDVRRAP	0.3356	1324.6	32.00
DRB1_0802	299	RATERVRAGVLGEIR	RATERVRAG	0.3324	1370.5	32.00
DRB1_0802	506	GLFNPLSVGAGLILG	FNPLSVGAG	0.3315	1384.8	32.00
DRB1_0802	291	FLSEQVLSRATERVR	LSRATERVR	0.3308	1394.9	32.00
DRB1_0802	77	LLKQGKSQLLNSLLN	LLKQGKSQL	0.3308	1395.1	32.00
DRB1_0802	254	ARVPMPPIIAVSSLLR	IIAVSSLLR	0.3305	1399.7	32.00
DRB1_0802	424	WAYQRSEALADDVAR	WAYQRSEAL	0.3304	1400.6	32.00
DRB1_0802	152	REVLRSEAVGAPSPLL	LRVEVGAPS	0.3304	1400.8	32.00
DRB1_0802	292	LSEQVLSRATERVRA	LSRATERVR	0.3284	1432.3	32.00
DRB1_0802	564	MIQRLLRDHYREIAE	MIQRLLRDH	0.3253	1480.1	32.00
DRB1_0802	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.3233	1513.5	32.00
DRB1_0802	231	ATKTDLYPRWREIVN	LYPRWREIV	0.3214	1544.9	32.00
DRB1_0802	141	TDVRRAPHAGGREVL	TDVRRAPHA	0.3213	1545.1	32.00
DRB1_0802	86	LNSLLNLPAAARVGD	LNSLLNLPAA	0.3209	1553.3	32.00
DRB1_0802	177	GVGGLGQPHLSATLG	GVGGLGQPH	0.3200	1568.1	32.00
DRB1_0802	298	SRATERVRAGVLGEI	RATERVRAG	0.3187	1590.8	50.00
DRB1_0802	290	KFLSEQVLSRATERV	FLSEQVLSR	0.3180	1601.3	50.00
DRB1_0802	546	FVDDISFVVSKQSRD	ISFVVSKQS	0.3178	1605.7	50.00
DRB1_0802	64	RITDPQVRVVIAGLL	RITDPQVRV	0.3174	1612.6	50.00
DRB1_0802	176	PGVGLGQPHLSATL	GVGGLGQPH	0.3154	1648.4	50.00
DRB1_0802	101	EATVVITVVSYSQAQ	VITVVSYSQA	0.3154	1648.6	50.00
DRB1_0802	507	LFNPLSVGAGLILGR	LFNPLSVGA	0.3141	1670.9	50.00
DRB1_0802	304	VRAGVLGEIRSATEQ	RAGVLGEIR	0.3139	1674.9	50.00
DRB1_0802	111	YSAQPSARLVLAAGP	YSAQPSARL	0.3134	1683.8	50.00
DRB1_0802	110	SYSQAQPSARLVLAAG	YSAQPSARL	0.3103	1740.9	50.00
DRB1_0802	237	YPRWREIVNANAHL	YPRWREIVN	0.3079	1787.3	50.00
DRB1_0802	151	GREVLRVEVGAPSP	RVEVGAPSP	0.3077	1790.8	50.00

DRB1_0802	545	RFVDDISFVVSQSR	ISFVVSQSQS	0.3076	1793.7	50.00
DRB1_0802	505	LGLFNPLSVGAGLIL	LFNPLSVGA	0.3074	1796.4	50.00
DRB1_0802	454	SPHVMGTDFGRLKAL	GTDFGRLKA	0.3063	1818.3	50.00
DRB1_0802	185	HLRSATLGLLPEADAV	HLRSATLGLL	0.3054	1835.2	50.00
DRB1_0802	302	ERVVRAGVLGEIRSAT	ERVVRAGVLG	0.3047	1849.6	50.00
DRB1_0802	289	VKFLSEQVLSRATER	KFLSEQVLS	0.3040	1864.6	50.00
DRB1_0802	372	TADVHDHLRTRFRTV	HDLRTRFRRT	0.3039	1866.6	50.00
DRB1_0802	31	RVGVIVELIDHTIAI	RVGVIVELI	0.3037	1870.6	50.00
DRB1_0802	607	RELQRQLGILSQVND	LQRQLGILS	0.3026	1892.0	50.00
DRB1_0802	608	ELQRQLGILSQVNDN	LQRQLGILS	0.3024	1897.4	50.00
DRB1_0802	308	VLRGEIRSATEQLAVS	VLGEIRSAT	0.3008	1930.1	50.00
DRB1_0802	342	DLERRKREAQQAVQQ	LERRKREAQ	0.3005	1937.0	50.00
DRB1_0802	30	RRVGVIVELIDHTIA	RVGVIVELI	0.3000	1946.8	50.00
DRB1_0802	609	LQRQLGILSQVNDNL	LQRQLGILS	0.2999	1948.8	50.00
DRB1_0802	175	TPGVGGLGQPHLSAT	GVGGLGQPH	0.2986	1977.2	50.00
DRB1_0802	303	RVRAGVLGEIRSATE	RAGVLGEIR	0.2969	2013.6	50.00
DRB1_0802	183	QPHLSATLGLLPEAD	HLSATLGLL	0.2967	2016.9	50.00
DRB1_0802	180	GLGQPHLSATLGLLP	HLSATLGLL	0.2967	2017.0	50.00
DRB1_0802	150	GGREVLRVVEVGAPSP	RVEVGAPSP	0.2958	2036.4	50.00
DRB1_0802	500	SSVVGLGLFNPLSVG	GLGLFNPLS	0.2946	2063.0	50.00
DRB1_0802	343	LERRKREAQQAVQQT	LERRKREAQ	0.2945	2065.3	50.00
DRB1_0802	184	PHLSATLGLLPEADA	HLSATLGLL	0.2934	2090.0	50.00
DRB1_0802	341	SDLERRKREAQQAVQ	LERRKREAQ	0.2925	2111.6	50.00
DRB1_0802	182	QPHLSATLGLLPEA	HLSATLGLL	0.2910	2144.7	50.00
DRB1_0802	207	QEFTEPEMWFVRQAH	PEMWFVRQA	0.2905	2157.8	50.00
DRB1_0802	509	NPLSVGAGLILGRMA	AGLILGRMA	0.2904	2159.3	50.00
DRB1_0802	340	ASDLERRKREAQQAV	LERRKREAQ	0.2902	2163.7	50.00
DRB1_0802	485	GMRGSYGGVVMIGML	MRGSYGGVV	0.2901	2166.3	50.00
DRB1_0802	243	IVNANAHLQRARVP	NAAHLQRAR	0.2881	2214.6	50.00
DRB1_0802	253	RARVPMPIIAVSSLL	PIIAVSSLL	0.2878	2220.8	50.00
DRB1_0802	251	LQRARVPMPIIAVSS	LQRARVPMPI	0.2876	2227.0	50.00
DRB1_0802	264	SSLRSHAVTLNDKE	SLLRSHAVT	0.2873	2234.1	50.00
DRB1_0802	242	EIVNANAHLQRARV	AAHLQRARV	0.2844	2305.4	50.00
DRB1_0802	598	AETERDNRIRELQRQ	RDNRIRELQ	0.2835	2327.2	50.00
DRB1_0802	39	IDHTIAIAKLNERGD	HTIAIAKLN	0.2834	2329.4	50.00
DRB1_0802	539	AKANVRRFVDDISFV	AKANVRRFV	0.2834	2329.9	50.00
DRB1_0802	174	DTPGVGGLGQPHLSA	GVGGLGQPH	0.2812	2385.2	50.00
DRB1_0802	339	LASDLERRKREAQQA	LERRKREAQ	0.2809	2394.3	50.00
DRB1_0802	79	KQGKSQLLNSLLNLP	LLNSLLNLP	0.2802	2413.0	50.00
DRB1_0802	453	LSPHVMGTDFGRLKA	GTDFGRLKA	0.2797	2425.3	50.00
DRB1_0802	41	HTIAIAKLNERGDLV	HTIAIAKLN	0.2786	2453.8	50.00
DRB1_0802	63	QRITDPQVRVVIAGL	RITDPQVRV	0.2782	2463.7	50.00
DRB1_0802	517	LILGRMAYKEDKQNR	ILGRMAYKE	0.2779	2471.8	50.00
DRB1_0802	499	LSSVVGLGLFNPLSV	GLGLFNPLS	0.2779	2472.2	50.00
DRB1_0802	354	VQQTALWQQVLGDGF	QQTALWQQV	0.2778	2474.6	50.00
DRB1_0802	238	PRWREIVNANAHLQ	PRWREIVNA	0.2777	2476.5	50.00
DRB1_0802	156	RVEVGAPSPLLRGGL	RVEVGAPSP	0.2776	2481.8	50.00
DRB1_0802	355	QQTALWQQVLGDGFN	QQTALWQQV	0.2747	2559.6	50.00
DRB1_0802	135	PVDDISTDVRRAPHA	ISTDVRRAP	0.2744	2568.7	50.00
DRB1_0802	40	DHTIAIAKLNERGDL	HTIAIAKLN	0.2723	2627.5	50.00
DRB1_0802	522	MAYKEDKQNRLLRVR	KQNRLLRVR	0.2708	2668.7	50.00
DRB1_0802	181	LGQPHLSATLGLLPE	HLSATLGLL	0.2700	2693.9	50.00
DRB1_0802	265	SLLRSHAVTLNDKEL	SLLRSHAVT	0.2698	2699.5	50.00
DRB1_0802	230	VATKTDLYPRWREIV	LYPRWREIV	0.2691	2718.4	50.00
DRB1_0802	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.2682	2746.0	50.00
DRB1_0802	100	DEATVVITVVSYSQA	VITVVSYSQA	0.2658	2816.9	50.00
DRB1_0802	29	PRRVGVIVELIDHTI	RVGVIVELI	0.2645	2858.8	50.00
DRB1_0802	179	GGLGQPHLSATLGLL	HLSATLGLL	0.2645	2859.1	50.00
DRB1_0802	338	RLASDLERRKREAQQ	LERRKREAQ	0.2630	2905.5	50.00
DRB1_0802	544	RRFVDDISFVVSQSQS	FVDDISFVV	0.2630	2906.4	50.00
DRB1_0802	222	QICPVGAVVATKTDL	QICPVGAVV	0.2612	2961.7	50.00
DRB1_0802	114	QPSARLVLAAGPDGT	QPSARLVLA	0.2606	2982.3	50.00
DRB1_0802	352	QAVQQTALWQQVLGD	QAVQQTALW	0.2605	2985.6	50.00
DRB1_0802	538	EAKANVRRFVDDISF	AKANVRRFV	0.2603	2991.7	50.00
DRB1_0802	38	LIDHTIAIAKLNERG	HTIAIAKLN	0.2603	2992.4	50.00
DRB1_0802	0	MVPAGLCAYRDLRRK	GLCAYRDLR	0.2601	2997.9	50.00
DRB1_0802	508	FNPLSVGAGLILGRM	FNPLSVGAG	0.2587	3044.6	50.00
DRB1_0802	301	TERVRAGVLGEIRSA	RAGVLGEIR	0.2560	3135.1	50.00
DRB1_0802	625	GLEPTLTTPRASLGRA	PTLTTPRASL	0.2559	3137.7	50.00
DRB1_0802	537	SEAKANVRRFVDDIS	AKANVRRFV	0.2543	3192.4	50.00

DRB1_0802	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.2539	3206.5	50.00
DRB1_0802	239	RWREIVNANAHLQR	RWREIVNAN	0.2535	3217.8	50.00
DRB1_0802	62	RQRITDPQVRVVIAG	RITDPQVRV	0.2528	3243.1	50.00
DRB1_0802	149	AGGREVLRVEVGAPS	REVLRVEVG	0.2528	3243.6	50.00
DRB1_0802	252	QRARVPMPI IAVSSL	RARVPMPI I	0.2526	3251.4	50.00
DRB1_0802	173	IDTPGVGGLGQPHLS	GVGGLGQPH	0.2525	3253.6	50.00
DRB1_0802	381	TRFRTVTEDAERQID	RFRTVTEDA	0.2520	3272.8	50.00
DRB1_0802	415	ATAVGDNFVWAYQRS	DNFVWAYQR	0.2517	3284.4	50.00
DRB1_0802	78	LKQGKSQLLNSLLNL	LKQGKSQLL	0.2516	3285.2	50.00
DRB1_0802	221	HQICPVGAVVATKTD	QICPVGAVV	0.2515	3288.8	50.00
DRB1_0802	351	QQAVQQTALWQQVLG	QAVQQTALW	0.2496	3358.5	50.00
DRB1_0802	353	AVQQTALWQQVLGDG	QTALWQQVL	0.2487	3392.2	50.00
DRB1_0802	310	GEIRSATEQLAVSLG	IRSATEQLA	0.2485	3396.8	50.00
DRB1_0802	518	ILGRMAYKEDKQNR	ILGRMAYKE	0.2482	3407.8	50.00
DRB1_0802	28	DPRRVGVIVELIDHT	RVGVIVELI	0.2467	3463.9	50.00
DRB1_0802	87	NSLLNLPAARVGDD	LLNLPAARV	0.2467	3465.5	50.00
DRB1_0802	146	APHAGGREVLRVEV	GREVLRVEV	0.2458	3498.7	50.00
DRB1_0802	217	VRQAHQICPVGAVVA	VRQAHQICP	0.2446	3545.8	50.00
DRB1_0802	536	RSEAKANVRRFVDDI	AKANVRRFV	0.2433	3594.7	50.00
DRB1_0802	113	AQPSARLVLAAGPDG	QPSARLVLA	0.2430	3608.6	50.00
DRB1_0802	35	IVELIDHTIAIAKLN	HTIAIAKLN	0.2411	3681.4	50.00
DRB1_0802	36	VELIDHTIAIAKLN	HTIAIAKLN	0.2410	3686.3	50.00
DRB1_0802	178	EVGGLQPHLSATLGL	EVGGLQPHL	0.2408	3692.6	50.00
DRB1_0802	158	VEGAPSPLLRGGLAF	VEGAPSPLL	0.2404	3708.7	50.00
DRB1_0802	580	ITRSLTESLQATIAA	ITRSLTESL	0.2400	3723.9	50.00
DRB1_0802	350	AQQAVQQTALWQQVL	QAVQQTALW	0.2394	3750.7	50.00
DRB1_0802	142	DVRRAPHAGGREVLR	VRRAPHAGG	0.2386	3781.5	50.00
DRB1_0802	227	GAVVATKTDLYPRWR	GAVVATKTD	0.2385	3785.9	50.00
DRB1_0802	371	LTADVHDHLRTRFRT	HDLRTRFRT	0.2383	3796.5	50.00
DRB1_0802	597	VAETERDNRIRELQR	RDNRIRELQ	0.2381	3802.7	50.00
DRB1_0802	27	DDPRRVGVIVELIDH	RVGVIVELI	0.2379	3811.2	50.00
DRB1_0802	164	PLLRGGLAFIDTPGV	LLRGGLAFI	0.2370	3850.6	50.00
DRB1_0802	37	ELIDHTIAIAKLNER	HTIAIAKLN	0.2350	3932.6	50.00
DRB1_0802	576	IAEEITRSLTESLQA	IAEEITRSL	0.2350	3933.0	50.00
DRB1_0802	99	DDEATVVITVVSYS	VITVVSYS	0.2349	3936.9	50.00
DRB1_0802	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.2339	3978.7	50.00
DRB1_0802	344	ERRKREAQQAVQQT	RRKREAQQA	0.2337	3987.4	50.00
DRB1_0802	540	KANVRRFVDDISFVV	KANVRRFVD	0.2335	3998.2	50.00
DRB1_0802	44	AIAKLNERGDLVQRL	AIAKLNERG	0.2333	4003.9	50.00
DRB1_0802	159	VGAPSPLLRGGLAFI	LLRGGLAFI	0.2332	4008.9	50.00
DRB1_0802	45	IAKLNERGDLVQRLT	RGDLVQRLT	0.2332	4009.7	50.00
DRB1_0802	147	PHAGGREVLRVEVGA	GREVLRVEV	0.2317	4074.8	50.00
DRB1_0802	337	DRKLADLERRKREAQ	LERRKREAQ	0.2314	4088.0	50.00
DRB1_0802	345	RRKREAQQAVQQTAL	RRKREAQQA	0.2309	4110.7	50.00
DRB1_0802	225	PVGAVVATKTDLYPR	VGAVVATKT	0.2302	4144.5	50.00
DRB1_0802	624	AGLEPTLTPRASLGR	PTLTPRASL	0.2296	4168.4	50.00
DRB1_0802	229	VVATKTDLYPRWREI	KTDLYPRWR	0.2294	4176.6	50.00
DRB1_0802	241	REIVNANAHLQRAR	EIVNANAHA	0.2290	4197.2	50.00
DRB1_0802	311	EIRSATEQLAVSLGS	IRSATEQLA	0.2286	4213.1	50.00
DRB1_0802	163	SPLLRGGLAFIDTPG	LLRGGLAFI	0.2285	4218.8	50.00
DRB1_0802	579	EITRSLTESLQATIA	ITRSLTESL	0.2281	4239.6	50.00
DRB1_0802	309	LGEIRSATEQLAVSL	IRSATEQLA	0.2278	4252.4	50.00
DRB1_0802	115	PSARLVLAAGPDGTT	PSARLVLAA	0.2277	4258.0	50.00
DRB1_0802	160	GAPSPLLRGGLAFID	LLRGGLAFI	0.2277	4258.0	50.00
DRB1_0802	220	QAHCICPVGAVVATKT	QICPVGAVV	0.2271	4285.2	50.00
DRB1_0802	219	QHQCICPVGAVVATK	QICPVGAVV	0.2257	4349.3	50.00
DRB1_0802	586	ESLQATIAAAQVAET	LQATIAAAQ	0.2255	4357.0	50.00
DRB1_0802	148	HAGGREVLRVEVGAP	GREVLRVEV	0.2250	4384.3	50.00
DRB1_0802	43	IAIAKLNERGDLVQR	AIAKLNERG	0.2248	4389.6	50.00
DRB1_0802	61	ARQRITDPQVRVIA	RITDPQVRV	0.2248	4390.3	50.00
DRB1_0802	587	SLQATIAAAQVAETE	SLQATIAAA	0.2241	4426.3	50.00
DRB1_0802	33	GVVELIDHTIAIAK	IVELIDHT	0.2239	4434.5	50.00
DRB1_0802	134	IPVDDIDTVRRAPH	ISTDVRRAP	0.2236	4447.7	50.00
DRB1_0802	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.2234	4456.9	50.00
DRB1_0802	145	RAPHAGGREVLRVEV	GREVLRVEV	0.2232	4468.0	50.00
DRB1_0802	88	SLNLPAARVGDD	LLNLPAARV	0.2228	4487.0	50.00
DRB1_0802	300	ATERVRAGVLGEIRS	RAGVLGEIR	0.2213	4559.6	50.00
DRB1_0802	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.2213	4563.5	50.00
DRB1_0802	356	QTALWQQVLGDGFND	QTALWQQVL	0.2208	4583.6	50.00
DRB1_0802	567	RLLRDHYREIAEEIT	RLLRDHYRE	0.2200	4625.5	50.00

DRB1_0802	89	LLNLPAARVGDEAT	LLNLPAARV	0.2192	4664.5	50.00
DRB1_0802	535	VRSEAKANVRRFVDD	AKANVRRFV	0.2177	4740.3	50.00
DRB1_0802	224	CPVGAVVATKTDLYP	GAVVATKTD	0.2174	4759.2	50.00
DRB1_0802	520	GRMAYKEDKQNRLLR	GRMAYKEDK	0.2169	4782.9	50.00
DRB1_0802	577	AEEITRSLTESLQAT	ITRSLTESL	0.2168	4790.5	50.00
DRB1_0802	34	VIVELIDHTIAIAKL	VIVELIDHT	0.2167	4795.0	50.00
DRB1_0802	575	EIAEEITRSLTESLQ	IAEEITRSL	0.2166	4797.7	50.00
DRB1_0802	218	RQAHQICPVGAVVAT	QAHQICPVG	0.2165	4802.3	50.00
DRB1_0802	240	WREIVNANAHLQRA	WREIVNANA	0.2165	4806.1	50.00
DRB1_0802	13	RKRARKWGDVTQPD	RKRARKWGD	0.2164	4809.8	50.00
DRB1_0802	112	SAQPSARLVLAAGPD	PKSARLVLA	0.2158	4843.1	50.00
DRB1_0802	584	LTESLQATIAAAQVA	LQATIAAAQ	0.2155	4854.8	50.00
DRB1_0802	582	RSLTESLQATIAAAQ	RSLTESLQA	0.2153	4867.3	50.00
DRB1_0802	319	LAVSLGSELSVVNDP	AVSLGSELS	0.2150	4880.5	50.00
DRB1_0802	349	EAQQAVQQTALWQQV	QAVQQTALW	0.2150	4883.5	50.00
DRB1_0802	278	ELNEESNFPAlVKFL	NFPAlVKFL	0.2144	4912.3	50.00
DRB1_0802	157	VEVGAPSPLLRGGLA	EVGAPSPLL	0.2134	4966.6	50.00
DRB1_0802	543	VRRFVDDISFVVSQ	FVDDISFVV	0.2132	4978.1	50.00
DRB1_0802	226	VGAVVATKTDLYPRW	GAVVATKTD	0.2130	4992.4	50.00
DRB1_0802	333	PNLRDRLASDLERRK	PNLRDRLAS	0.2118	5052.5	50.00
DRB1_0802	26	PDDPRRVGVIVELID	RVGVIVELI	0.2114	5076.3	50.00
DRB1_0802	32	VGIVIVELIDHTIAIA	VIVELIDHT	0.2104	5131.4	50.00
DRB1_0802	223	ICPVGAVVATKTDLY	VGAVVATKT	0.2095	5181.1	50.00
DRB1_0802	60	RARQITDPQVRVVI	RITDPQVRV	0.2086	5233.8	50.00
DRB1_0802	42	TIAIAKLNERGDLVQ	AIAKLNERG	0.2063	5367.9	50.00
DRB1_0802	172	FIDTPGVGGLGQPHL	GVGGLGQPH	0.2059	5390.9	50.00
DRB1_0802	228	AVVATKTDLYPRWRE	KTDLYPRWR	0.2058	5396.7	50.00
DRB1_0802	578	EEITRSLTESLQATI	ITRSLTESL	0.2047	5456.3	50.00
DRB1_0802	162	PSPLLRRGGLAFIDTP	LLRGGLAFI	0.2041	5495.8	50.00
DRB1_0802	444	GLDSVLSAELSPHVM	GLDSVLSAE	0.2031	5551.6	50.00
DRB1_0802	348	REAQQAVQQTALWQQ	QAVQQTALW	0.2029	5567.4	50.00
DRB1_0802	165	LLRGGLAFIDTPGVG	LLRGGLAFI	0.2029	5568.7	50.00
DRB1_0802	59	TRARQITDPQVRVV	RITDPQVRV	0.2028	5569.2	50.00
DRB1_0802	332	DPNLRDRLASDLERR	PNLRDRLAS	0.2027	5580.4	50.00
DRB1_0802	312	IRSATEQLAVSLGSE	IRSATEQLA	0.2014	5656.8	50.00
DRB1_0802	346	KKREAQQAVQQTALW	RKREAQQAV	0.2007	5702.4	50.00
DRB1_0802	161	APSPPLLRRGGLAFIDT	LRGGLAFI	0.2004	5719.9	50.00
DRB1_0802	574	REIAEEITRSLTESL	IAEEITRSL	0.2002	5730.0	50.00
DRB1_0802	585	TESLQATIAAAQVAE	LQATIAAAQ	0.1994	5778.5	50.00
DRB1_0802	565	IQRLLRDHYREIAEE	IQRLLRDHY	0.1993	5784.3	50.00
DRB1_0802	541	ANVRRFVDDISFVVS	FVDDISFVV	0.1990	5807.3	50.00
DRB1_0802	318	QLAVSLGSELSVVND	AVSLGSELS	0.1979	5872.4	50.00
DRB1_0802	133	DIPVDDISTDVRRAP	ISTDVRRAP	0.1977	5885.4	50.00
DRB1_0802	25	QPDDPRRVGVIVELI	RVGVIVELI	0.1971	5926.0	50.00
DRB1_0802	519	LGRMAYKEDKQNRLL	GRMAYKEDK	0.1970	5930.9	50.00
DRB1_0802	583	SLTESLQATIAAAQV	LTESLQATI	0.1970	5933.8	50.00
DRB1_0802	186	LSATLGLLPEADAVL	LSATLGLLP	0.1970	5935.1	50.00
DRB1_0802	347	KREAQQAVQQTALWQ	QAVQQTALW	0.1968	5945.0	50.00
DRB1_0802	168	GGLAFIDTPGVGGLG	GLAFIDTPG	0.1963	5976.0	50.00
DRB1_0802	542	NRRFVDDISFVVSQ	FVDDISFVV	0.1963	5976.5	50.00
DRB1_0802	581	TRSLTESLQATIAAA	RSLTESLQA	0.1961	5991.2	50.00
DRB1_0802	320	AVSLGSELSVVNDPN	AVSLGSELS	0.1955	6030.8	50.00
DRB1_0802	588	LQATIAAAQVAETER	ATIAAAQVA	0.1953	6042.4	50.00
DRB1_0802	623	LAGLEPTLTPRASLG	PTLTPRASL	0.1951	6056.8	50.00
DRB1_0802	414	IATAVGDNFVWAYQR	GDNFVWAYQ	0.1939	6134.4	50.00
DRB1_0802	568	LLRDHYREIAEEITR	LLRDHYREI	0.1932	6185.2	50.00
DRB1_0802	445	LDSVLSAELSPHVMG	LSAELSPHV	0.1930	6196.5	50.00
DRB1_0802	443	AGLDSVLSAELSPHV	DSVLSAELS	0.1914	6300.9	50.00
DRB1_0802	446	DSVLSAELSPHVMGT	LSAELSPHV	0.1903	6380.8	50.00
DRB1_0802	167	RGGLAFIDTPGVGGL	GLAFIDTPG	0.1870	6610.8	50.00
DRB1_0802	521	RMAYKEDKQNRLLRV	KEDKQNRLL	0.1866	6638.7	50.00
DRB1_0802	566	QRLLRDHYREIAEEI	RLRDHYREI	0.1862	6670.1	50.00
DRB1_0802	166	LRGLLAFIDTPGVGG	GLAFIDTPG	0.1846	6786.1	50.00
DRB1_0802	317	EQLAVSLGSELSVVN	AVSLGSELS	0.1845	6793.8	50.00
DRB1_0802	610	QRQLGILSQVNDNLA	QLGILSQVN	0.1831	6892.8	50.00
DRB1_0802	336	RDRLASDLERRKREA	ASDLERRKR	0.1813	7034.3	50.00
DRB1_0802	206	SQEFTEPEMWFVRQA	PEMWFVRQA	0.1806	7082.0	50.00
DRB1_0802	331	NDPNLRDRLASDLER	PNLRDRLAS	0.1795	7168.7	50.00
DRB1_0802	611	RQLGILSQVNDNLAG	QLGILSQVN	0.1773	7343.7	50.00
DRB1_0802	442	DAGLDSVLSAELSPH	LDSVLSAEL	0.1771	7358.5	50.00

DRB1_0802	144	RRAPHAGGREVLRLVE	APHAGGREV	0.1770	7368.6	50.00
DRB1_0802	14	KRARKWGDTVTPDD	RARKWGDTV	0.1766	7399.8	50.00
DRB1_0802	596	QVAETERDNRIRELQ	RDNRIRELQ	0.1762	7426.9	50.00
DRB1_0802	569	LRDHYREIAEEITRS	HYREIAEEI	0.1762	7429.0	50.00
DRB1_0802	315	ATEQLAVSLGSELSV	AVSLGSELS	0.1755	7487.4	50.00
DRB1_0802	620	NDNLAGLEPTLTPRA	NDNLAGLEP	0.1753	7500.7	50.00
DRB1_0802	621	DNLAGLEPTLTPRAS	NLAGLEPTL	0.1715	7818.7	50.00
DRB1_0802	612	QLGILSQVNDNLAGL	QLGILSQVN	0.1702	7925.6	50.00
DRB1_0802	589	QATIAAAQVAETERD	ATIAAAQVA	0.1700	7948.3	50.00
DRB1_0802	622	NLAGLEPTLTPRASL	NLAGLEPTL	0.1693	8004.7	50.00
DRB1_0802	15	RARKWGDTVTPDDP	RARKWGDTV	0.1689	8039.9	50.00
DRB1_0802	440	FADAGLDSVLSAELS	LDSVLSAEL	0.1689	8043.5	50.00
DRB1_0802	330	VNDPNLRDRRLASDLE	PNLRDRRLAS	0.1687	8054.7	50.00
DRB1_0802	316	TEQLAVSLGSELSVV	AVSLGSELS	0.1673	8178.7	50.00
DRB1_0802	572	HYREIAEEITRSLTE	HYREIAEEI	0.1673	8179.7	50.00
DRB1_0802	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.1666	8241.9	50.00
DRB1_0802	90	LNLPAARVGDEATV	LNLPAARVG	0.1663	8271.6	50.00
DRB1_0802	452	ELSPHVMGTDFGRLK	MGTDFGRLK	0.1641	8474.0	50.00
DRB1_0802	407	GNDVENAIATAVGDN	GNDVENAIA	0.1634	8536.0	50.00
DRB1_0802	169	GLAFIDTPGVGGLGQ	GLAFIDTPG	0.1624	8623.3	50.00
DRB1_0802	571	DHYREIAEEITRSLT	HYREIAEEI	0.1624	8626.6	50.00
DRB1_0802	405	EIGNDVENAIATAVG	GNDVENAIA	0.1615	8711.2	50.00
DRB1_0802	314	SATEQLAVSLGSELS	AVSLGSELS	0.1610	8758.5	50.00
DRB1_0802	570	RDHYREIAEEITRSL	HYREIAEEI	0.1610	8759.2	50.00
DRB1_0802	406	IGNDVENAIATAVGD	GNDVENAIA	0.1584	9011.9	50.00
DRB1_0802	335	LRDRLASDLERRKRE	RLASDLERR	0.1582	9029.5	50.00
DRB1_0802	590	ATIAAAQVAETERDN	ATIAAAQVA	0.1582	9032.3	50.00
DRB1_0802	619	VNDNLAGLEPTLTPR	NLAGLEPTL	0.1573	9116.2	50.00
DRB1_0802	447	SVLSAELSPHVMGTD	LSAELSPHV	0.1562	9226.0	50.00
DRB1_0802	399	PTAHWAEIGNDVENA	PTAHWAEIG	0.1561	9233.2	50.00
DRB1_0802	398	DPTAHWAEIGNDVEN	PTAHWAEIG	0.1559	9259.4	50.00
DRB1_0802	117	ARLVLAAGPDGTTAA	RLVLAAGPD	0.1550	9343.7	50.00
DRB1_0802	116	SARLVLAAGPDGTTA	LVLAAGPDG	0.1548	9365.3	50.00
DRB1_0802	425	AYQRSEALADDVARS	AYQRSEALA	0.1539	9460.1	50.00
DRB1_0802	397	CDPTAHWAEIGNDVE	PTAHWAEIG	0.1531	9537.2	50.00
DRB1_0802	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.1528	9575.9	50.00
DRB1_0802	329	VVNDPNLRDRRLASDL	PNLRDRRLAS	0.1509	9774.9	50.00
DRB1_0802	618	QVNDNLAGLEPTLTP	NDNLAGLEP	0.1505	9811.3	50.00
DRB1_0802	334	NLRDRLASDLERRKR	RDRLASDLE	0.1498	9883.7	50.00
DRB1_0802	448	VLSAELSPHVMGTDF	LSAELSPHV	0.1474	10142.0	50.00
DRB1_0802	322	SLGSELSVVNDPNLR	SLGSELSVV	0.1459	10316.7	50.00
DRB1_0802	617	SQVNDNLAGLEPTLT	NDNLAGLEP	0.1453	10380.7	50.00
DRB1_0802	410	VENAIATAVGDNFVW	VENAIATAV	0.1440	10523.9	50.00
DRB1_0802	404	AEIGNDVENAIATAV	GNDVENAIA	0.1435	10588.6	50.00
DRB1_0802	393	QIDSCDPTAHWAEIG	QIDSCDPTA	0.1418	10775.8	50.00
DRB1_0802	402	HWAEIGNDVENAIAT	GNDVENAIA	0.1415	10816.9	50.00
DRB1_0802	439	SFADAGLDSVLSAEL	LDSVLSAEL	0.1408	10896.4	50.00
DRB1_0802	321	VSLGSELSVVNDPNL	LGSELSVVN	0.1408	10898.9	50.00
DRB1_0802	396	SCDPTAHWAEIGNDV	PTAHWAEIG	0.1393	11071.5	50.00
DRB1_0802	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.1393	11074.6	50.00
DRB1_0802	357	TALWQQVLGDGFNDL	TALWQQVLG	0.1381	11226.7	50.00
DRB1_0802	313	RSATEQLAVSLGSEL	RSATEQLAV	0.1362	11459.3	50.00
DRB1_0802	573	YREIAEEITRSLTES	IAEEITRSL	0.1355	11546.3	50.00
DRB1_0802	449	LSAELSPHVMGTDFG	LSAELSPHV	0.1349	11615.5	50.00
DRB1_0802	394	IDSCDPTAHWAEIGN	PTAHWAEIG	0.1340	11735.5	50.00
DRB1_0802	616	LDSQVNDNLAGLEPTL	NDNLAGLEP	0.1335	11789.1	50.00
DRB1_0802	431	ALADDVARSFADAGL	ADDVARSFFA	0.1333	11817.1	50.00
DRB1_0802	432	LADDVARSFADAGLD	ADDVARSFFA	0.1315	12057.2	50.00
DRB1_0802	395	DSCDPTAHWAEIGND	PTAHWAEIG	0.1308	12145.6	50.00
DRB1_0802	413	AIATAVGDNFVWAYQ	GDNFVWAYQ	0.1295	12319.3	50.00
DRB1_0802	430	EALADDVARSFADAG	ADDVARSFFA	0.1293	12348.0	50.00
DRB1_0802	328	SVVNDPNLRDRRLASD	PNLRDRRLAS	0.1280	12516.8	50.00
DRB1_0802	403	WAEIGNDVENAIATA	GNDVENAIA	0.1278	12549.3	50.00
DRB1_0802	411	ENAIATAVGDNFVWA	ENAIATAVG	0.1277	12552.0	50.00
DRB1_0802	408	NDVENAIATAVGDNF	VENAIATAV	0.1260	12796.5	50.00
DRB1_0802	17	RKWGDTVTPDDPRR	RKWGDTVTP	0.1253	12887.5	50.00
DRB1_0802	409	DVENAIATAVGDNFV	VENAIATAV	0.1251	12918.0	50.00
DRB1_0802	433	ADDVARSFADAGLDS	VARSFADAG	0.1248	12962.1	50.00
DRB1_0802	401	AHWAEIGNDVENAIA	GNDVENAIA	0.1239	13087.4	50.00
DRB1_0802	327	LSVVNDPNLRDRRLAS	PNLRDRRLAS	0.1238	13102.0	50.00

DRB1_0802	451	AELSPHVMGTDGFRGL	HVMGTDGFR	0.1227	13252.5	50.00
DRB1_0802	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.1195	13727.3	50.00
DRB1_0802	436	VARSFADAGLDSVLS	VARSFADAG	0.1180	13951.7	50.00
DRB1_0802	267	LRSHAVTLNDKELNE	HAVTLNDKE	0.1178	13983.3	50.00
DRB1_0802	98	GDDEATVVITVVSYS	VVITVVSYS	0.1177	13992.1	50.00
DRB1_0802	188	ATLGLLPEADAVLVV	ATLGLLPEA	0.1173	14058.9	50.00
DRB1_0802	615	ILSQVNDNLAGLEPT	ILSQVNDNL	0.1167	14148.6	50.00
DRB1_0802	132	VDIPVDDISTDVRRA	DISTDVRRA	0.1165	14180.9	50.00
DRB1_0802	187	SATLGLLPEADAVLV	ATLGLLPEA	0.1159	14267.1	50.00
DRB1_0802	323	LGSELSVVNDPNLRD	LGSELSVVN	0.1149	14415.8	50.00
DRB1_0802	127	GTTAAVDIPVDDIST	NTTAAVDIP	0.1138	14602.6	50.00
DRB1_0802	614	GILSQVNDNLAGLEP	NDNLAGLEP	0.1134	14661.3	50.00
DRB1_0802	392	RQIDSCDPTAHWAEI	QIDSCDPTA	0.1130	14716.3	50.00
DRB1_0802	18	KWGDTVTPDDPRRV	WGDTVTPD	0.1112	15012.2	50.00
DRB1_0802	24	TQPDDPRRVGVIVEL	DPRRVGVIV	0.1109	15066.9	50.00
DRB1_0802	16	ARKWGDTVTPDDPR	RKWGDTVTP	0.1097	15255.7	50.00
DRB1_0802	358	ALWQQVLGDGFNDLT	WQQVLGDGF	0.1095	15288.2	50.00
DRB1_0802	23	VTQPDDPRRVGVIVE	VTQPDDPRR	0.1094	15307.1	50.00
DRB1_0802	19	WGDTVTPDDPRRVG	WGDTVTPD	0.1074	15642.1	50.00
DRB1_0802	438	RSFADAGLDSVLSAE	DAGLDSVLS	0.1055	15959.4	50.00
DRB1_0802	391	ERQIDSCDPTAHWAE	QIDSCDPTA	0.1055	15963.7	50.00
DRB1_0802	613	LGILSQVNDNLAGLE	LSQVNDNLA	0.1049	16072.9	50.00
DRB1_0802	363	VLGDGFNDLTADVHD	GDGFNDLTA	0.1036	16293.2	50.00
DRB1_0802	450	SaelSPHVMGTDGFR	HVMGTDGFR	0.1033	16348.3	50.00
DRB1_0802	170	LAFIDTPGVGGLGQP	FIDTPGVGG	0.1021	16567.8	50.00
DRB1_0802	435	DVARSFADAGLDSVL	VARSFADAG	0.1012	16728.2	50.00
DRB1_0802	22	TVTQPDDPRRVGVIV	VTQPDDPRR	0.1007	16826.4	50.00
DRB1_0802	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.1006	16828.9	50.00
DRB1_0802	365	GDGFNDLTADVHDHL	GDGFNDLTA	0.0992	17086.9	50.00
DRB1_0802	199	VLVVSSDTSQEFTEPE	VLVVSSDTSQ	0.0987	17191.1	50.00
DRB1_0802	119	LVLAAAGPDGTTAAVD	LVLAAAGPDG	0.0967	17563.6	50.00
DRB1_0802	198	AVLVVSSDTSQEFTEP	VLVVSSDTSQ	0.0962	17651.6	50.00
DRB1_0802	96	RVGDDEATVVITVVS	ATVVITVVS	0.0961	17678.5	50.00
DRB1_0802	364	LGDGFNDLTADVHDH	GDGFNDLTA	0.0955	17793.3	50.00
DRB1_0802	97	VGDDEATVVITVVSYS	ATVVITVVS	0.0954	17806.0	50.00
DRB1_0802	434	DDVARSFADAGLDSV	VARSFADAG	0.0951	17862.7	50.00
DRB1_0802	367	GFNDLTADVHDHLRT	VANSFLTADV	0.0945	17993.5	50.00
DRB1_0802	270	HAVTLNDKELNEESN	VTLNDKELN	0.0943	18031.1	50.00
DRB1_0802	362	QVLGDGFNDLTADV	GDGFNDLTA	0.0931	18259.0	50.00
DRB1_0802	390	AERQIDSCDPTAHWA	QIDSCDPTA	0.0921	18463.2	50.00
DRB1_0802	370	DLTADVHDHLRTRFR	DHDLRTRFR	0.0917	18531.9	50.00
DRB1_0802	591	TIAAAQVAETERDNR	TIAAAQVAE	0.0885	19185.6	50.00
DRB1_0802	277	ELNEESNFPPIVKF	ELNEESNFP	0.0880	19294.0	50.00
DRB1_0802	326	KELSVVNDPNLRDRLA	DPNLRDRLA	0.0879	19321.0	50.00
DRB1_0802	126	DGTTAAVDIPVDDIS	GTTAAVDIP	0.0877	19349.2	50.00
DRB1_0802	197	DAVLVVSSDTSQEFTE	VLVVSSDTSQ	0.0870	19497.8	50.00
DRB1_0802	366	DGFNDLTADVHDHLR	GFNDLTADV	0.0865	19612.3	50.00
DRB1_0802	361	QQVLGDGFNDLTADV	GDGFNDLTA	0.0852	19889.9	50.00
DRB1_0802	412	NAIATAVGDNFVWAY	AVGDNFVWA	0.0846	20009.0	50.00
DRB1_0802	268	RSHAVTLNDKELNEE	VTLNDKELN	0.0844	20067.8	50.00
DRB1_0802	269	SHAVTLNDKELNEES	HAVTLNDKE	0.0841	20123.2	50.00
DRB1_0802	595	AQVAETERDNRIREL	ETERDNRIR	0.0838	20191.5	50.00
DRB1_0802	400	TAHWAEIGNDVENAI	HWAEIGNDV	0.0828	20403.2	50.00
DRB1_0802	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.0820	20588.1	50.00
DRB1_0802	276	DKELNEESNFPPIVK	ELNEESNFP	0.0816	20682.8	50.00
DRB1_0802	324	GSELSVVNDPNLRDR	GSELSVVND	0.0804	20944.7	50.00
DRB1_0802	196	ADAVLVVSDDTSQEF	VLVVSDDTSQ	0.0794	21165.9	50.00
DRB1_0802	428	RSEALADDVARSFAD	ADDVARSF	0.0791	21236.1	50.00
DRB1_0802	20	GDTVTPDDPRRVGV	VTQPDDPRR	0.0788	21319.4	50.00
DRB1_0802	131	AVDIPVDDISTDVR	VDIPVDDIS	0.0787	21346.0	50.00
DRB1_0802	429	SEALADDVARSFADA	ADDVARSF	0.0778	21549.0	50.00
DRB1_0802	427	QRSEALADDVARSF	ADDVARSF	0.0767	21806.8	50.00
DRB1_0802	189	TLGLLPEADAVLVVS	LGLLPEADA	0.0761	21950.5	50.00
DRB1_0802	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.0755	22079.6	50.00
DRB1_0802	383	FRTVTEAERQIDSC	FRTVTEAE	0.0755	22087.0	50.00
DRB1_0802	204	DTSQEFTEPEMWFVR	FTEPEMWFV	0.0753	22139.9	50.00
DRB1_0802	21	DTVTQPDDPRRVGVI	VTQPDDPRR	0.0749	22228.4	50.00
DRB1_0802	130	AAVDIPVDDISTDVR	VDIPVDDIS	0.0749	22231.8	50.00
DRB1_0802	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.0743	22389.0	50.00
DRB1_0802	195	EADAVLVVSDDTSQEF	VLVVSDDTSQ	0.0742	22392.6	50.00

DRB1_0802	437	ARSFADAGLDSVLSA	DAGLDSVLS	0.0721	22908.2	50.00
DRB1_0802	389	DAERQIDSCDPTAHW	QIDSCDPTA	0.0717	23022.3	50.00
DRB1_0802	125	PDGTTAAVDIPVDDI	GTAAVDIP	0.0717	23023.8	50.00
DRB1_0802	325	SELVSVNDPNLRDL	LSVVDPNL	0.0709	23210.3	50.00
DRB1_0802	129	TAAVDIPVDDISTDV	VDIPVDDIS	0.0706	23293.4	50.00
DRB1_0802	426	YQRSEALADDVARSF	YQRSEALAD	0.0704	23337.8	50.00
DRB1_0802	124	GPDGTTAAVDIPVDD	GTAAVDIP	0.0704	23350.4	50.00
DRB1_0802	594	AAQVAETERDNRIRE	ETERDNRIR	0.0702	23401.5	50.00
DRB1_0802	123	AGPDGTTAAVDIPVD	GTAAVDIP	0.0700	23440.3	50.00
DRB1_0802	194	PEADAVLVVSDTSQE	VLVVSDTSQ	0.0672	24171.4	50.00
DRB1_0802	122	AAGPDGTTAAVDIPV	GTAAVDIP	0.0669	24254.0	50.00
DRB1_0802	593	AAAQVAETERDNRIR	ETERDNRIR	0.0666	24314.4	50.00
DRB1_0802	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.0664	24367.6	50.00
DRB1_0802	272	VTLNDKELNEESNFP	VTLNDKELN	0.0661	24459.0	50.00
DRB1_0802	273	TLNDKELNEESNFPA	LNEESNFPA	0.0655	24614.6	50.00
DRB1_0802	384	RTVTEDAERQIDSCD	TVTEDAERQ	0.0649	24779.4	50.00
DRB1_0802	385	TVTEDAERQIDSCDP	VTEDAERQI	0.0646	24854.4	50.00
DRB1_0802	388	EDAERQIDSCDPTAH	QIDSCDPTA	0.0642	24964.6	50.00
DRB1_0802	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.0638	25079.9	50.00
DRB1_0802	190	LGLLPEADAVLVVSD	LGLLPEADA	0.0635	25148.9	50.00
DRB1_0802	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.0633	25211.9	50.00
DRB1_0802	271	AVTLNDKELNEESNF	VTLNDKELN	0.0633	25220.6	50.00
DRB1_0802	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.0630	25298.8	50.00
DRB1_0802	121	LAAGPDGTTAAVDIP	GTAAVDIP	0.0624	25442.9	50.00
DRB1_0802	274	LNDKELNEESNFPAI	LNEESNFPA	0.0622	25515.9	50.00
DRB1_0802	369	NDLTADVVDHDLRTRF	VDHDLRTRF	0.0620	25564.8	50.00
DRB1_0802	275	NDKELNEESNFPAIV	LNEESNFPA	0.0618	25632.2	50.00
DRB1_0802	592	IAAAQVAETERDNRI	IAAAQVAET	0.0612	25783.5	50.00
DRB1_0802	386	VTEDAERQIDSCDPT	VTEDAERQI	0.0572	26928.2	50.00
DRB1_0802	368	FNDLTADVVDHDLRTR	FNDLTADV	0.0562	27220.3	50.00
DRB1_0802	191	LGLLPEADAVLVVSDT	LLPEADAVL	0.0547	27676.4	50.00
DRB1_0802	202	VSDTSQEFTEPEMWF	VSDTSQEF	0.0510	28782.6	50.00
DRB1_0802	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.0498	29178.0	50.00
DRB1_0802	95	ARVGDDEATVVITVV	RVGDDEATV	0.0492	29368.7	50.00
DRB1_0802	387	TEDAERQIDSCDPTA	QIDSCDPTA	0.0490	29431.3	50.00
DRB1_0802	91	NLPAARVGDDEATVV	NLPAARVGD	0.0485	29582.0	50.00
DRB1_0802	93	PAARVGDDEATVVIT	RVGDDEATV	0.0407	32187.3	50.00
DRB1_0802	94	AARVGDDEATVVITV	RVGDDEATV	0.0399	32476.2	50.00
DRB1_0802	92	LPAARVGDDEATVVI	RVGDDEATV	0.0391	32769.2	50.00

Allele: DRB1_0802. Number of high binders 21. Number of weak binders 106. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_0901	463	GRLKALGRMESKPLR	LGRMESKPL	0.6830	30.9	SB	0.80
DRB1_0901	106	ITVVSYSYAQPSARLV	YSAQPSARL	0.6798	32.0	SB	0.80
DRB1_0901	107	TVVSYSYAQPSARLVL	YSAQPSARL	0.6782	32.5	SB	0.80
DRB1_0901	462	FVRLKALGRMESKPL	RLKALGRME	0.6764	33.2	SB	0.80
DRB1_0901	420	DNFVWAYQRSEALAD	WAYQRSEAL	0.6727	34.5	SB	1.00
DRB1_0901	421	NFVWAYQRSEALADD	WAYQRSEAL	0.6636	38.1	SB	2.00
DRB1_0901	570	RDHYREIAEEITRSL	HYREIAEEI	0.6607	39.3	SB	2.00
DRB1_0901	108	VVSYSYAQPSARLVLA	YSAQPSARL	0.6584	40.3	SB	2.00
DRB1_0901	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.6570	40.9	SB	2.00
DRB1_0901	109	VVSYSYAQPSARLVLA	YSAQPSARL	0.6433	47.4	SB	2.00
DRB1_0901	110	SYSYAQPSARLVLAAG	YSAQPSARL	0.6429	47.6	SB	2.00
DRB1_0901	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.6403	49.0	SB	2.00
DRB1_0901	569	LRDHYREIAEEITRSL	HYREIAEEI	0.6399	49.2	SB	2.00
DRB1_0901	285	FPAIVKFLSEQVLSR	IVKFLSEQV	0.6377	50.4	WB	2.00
DRB1_0901	422	FDNFWAYQRSEALADDV	WAYQRSEAL	0.6339	52.5	WB	2.00
DRB1_0901	419	GVVWFVWAYQRSEALA	WAYQRSEAL	0.6336	52.7	WB	2.00
DRB1_0901	284	NFPAIVKFLSEQVLS	IVKFLSEQV	0.6330	53.0	WB	2.00
DRB1_0901	464	RLKALGRMESKPLRR	LGRMESKPL	0.6299	54.8	WB	4.00
DRB1_0901	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.6291	55.3	WB	4.00
DRB1_0901	105	VITVVSYSYAQPSARL	YSAQPSARL	0.6263	57.0	WB	4.00
DRB1_0901	288	IVKFLSEQVLSRATE	IVKFLSEQV	0.6185	62.0	WB	4.00
DRB1_0901	571	DHYREIAEEITRSLT	HYREIAEEI	0.6175	62.7	WB	4.00
DRB1_0901	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.6167	63.2	WB	4.00

DRB1_0901	567	RLLRDHYREIAEEIT	HYREIAEEI	0.6127	66.1	WB	4.00
DRB1_0901	568	LLRDHYREIAEEITR	HYREIAEEI	0.6124	66.3	WB	4.00
DRB1_0901	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.6122	66.4	WB	4.00
DRB1_0901	423	VWAYQRSEALADDVA	WAYQRSEAL	0.6093	68.5	WB	4.00
DRB1_0901	287	IVKFLSEQVLSRAT	IVKFLSEQV	0.6052	71.7	WB	4.00
DRB1_0901	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.6018	74.3	WB	4.00
DRB1_0901	111	YSAQPSARLVLAAGP	YSAQPSARL	0.5999	75.9	WB	4.00
DRB1_0901	495	MIGMLSSVVGLGLFN	MIGMLSSVV	0.5992	76.5	WB	4.00
DRB1_0901	494	VMIGMLSSVVGLGLF	IGMLSSVVG	0.5908	83.7	WB	8.00
DRB1_0901	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.5894	85.0	WB	8.00
DRB1_0901	579	EITRSLTESLQATIA	ITRSLTESL	0.5889	85.5	WB	8.00
DRB1_0901	283	SNFPAIVKFLSEQVL	IVKFLSEQV	0.5877	86.5	WB	8.00
DRB1_0901	424	WAYQRSEALADDVAR	WAYQRSEAL	0.5857	88.4	WB	8.00
DRB1_0901	67	DPQVRVVIAGLLKQG	VRVVIAGLL	0.5825	91.6	WB	8.00
DRB1_0901	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.5824	91.7	WB	8.00
DRB1_0901	154	VLRVEVGAPSPLLRG	EVGAPSPLL	0.5803	93.7	WB	8.00
DRB1_0901	578	EEITRSLTESLQATI	ITRSLTESL	0.5799	94.2	WB	8.00
DRB1_0901	572	HYREIAEEITRSLTE	HYREIAEEI	0.5797	94.4	WB	8.00
DRB1_0901	580	ITRSLTESLQATIAA	ITRSLTESL	0.5794	94.7	WB	8.00
DRB1_0901	261	IAVSSLLRSHAVTLN	LLRSHAVTL	0.5787	95.4	WB	8.00
DRB1_0901	309	LGEIRSATEQLAVSL	EIRSATEQL	0.5772	96.9	WB	8.00
DRB1_0901	485	GMRGSYGGVVMIGML	MRGSYGGVV	0.5764	97.8	WB	8.00
DRB1_0901	486	MRGSYGGVVMIGMLS	MRGSYGGVV	0.5753	99.0	WB	8.00
DRB1_0901	460	TDFGRLKALGRMESK	RLKALGRME	0.5724	102.2	WB	8.00
DRB1_0901	69	QVRVVIAGLLKQGKS	VRVVIAGLL	0.5720	102.6	WB	8.00
DRB1_0901	493	VVMIGMLSSVVGLGL	MIGMLSSVV	0.5713	103.4	WB	8.00
DRB1_0901	461	DFGRLKALGRMESKP	GRLKALGRM	0.5708	103.9	WB	8.00
DRB1_0901	418	VGDNFVWAYQRSEAL	NFVWAYQRS	0.5706	104.2	WB	8.00
DRB1_0901	310	GEIRSATEQLAVSLG	EIRSATEQL	0.5670	108.3	WB	8.00
DRB1_0901	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.5668	108.6	WB	8.00
DRB1_0901	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.5656	110.0	WB	8.00
DRB1_0901	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.5651	110.6	WB	8.00
DRB1_0901	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.5630	113.0	WB	8.00
DRB1_0901	155	LRVEVGAPSPLLRGG	EVGAPSPLL	0.5622	114.1	WB	8.00
DRB1_0901	482	MIIGMRGSYGGVVM	MRGSYGGVV	0.5587	118.5	WB	8.00
DRB1_0901	465	LKALGRMESKPLRRG	LGRMESKPL	0.5564	121.4	WB	8.00
DRB1_0901	308	VLGEIRSATEQLAVS	EIRSATEQL	0.5551	123.2	WB	8.00
DRB1_0901	492	GVMIGMLSSVVGLG	MIGMLSSVV	0.5549	123.5	WB	8.00
DRB1_0901	214	MWFVRQAHQICPVGA	WFVRQAHQI	0.5539	124.8	WB	8.00
DRB1_0901	425	AYQRSEALADDVARS	YQRSEALAD	0.5534	125.5	WB	8.00
DRB1_0901	68	PQVRVVIAGLLKQGK	VRVVIAGLL	0.5530	126.0	WB	8.00
DRB1_0901	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.5491	131.5	WB	8.00
DRB1_0901	577	AEIITRSLTESLQAT	ITRSLTESL	0.5484	132.5	WB	8.00
DRB1_0901	180	GLGQPHLSATLGLLP	HLSATLGLL	0.5479	133.2	WB	16.00
DRB1_0901	483	IIGMRGSYGGVVMIG	MRGSYGGVV	0.5475	133.8	WB	16.00
DRB1_0901	156	RVEVGAPSPLLRGGL	EVGAPSPLL	0.5447	137.9	WB	16.00
DRB1_0901	459	GTDFGRLKALGRMES	RLKALGRME	0.5444	138.4	WB	16.00
DRB1_0901	289	VKFLSEQVLSRATER	VKFLSEQVL	0.5435	139.7	WB	16.00
DRB1_0901	220	AHQICPVGAVVATKT	HQICPVGAV	0.5424	141.3	WB	16.00
DRB1_0901	282	ENFPAIVKFLSEQV	IVKFLSEQV	0.5423	141.4	WB	16.00
DRB1_0901	66	TDPQVRVVIAGLLKQ	VRVVIAGLL	0.5400	145.1	WB	16.00
DRB1_0901	306	AGVLGEIRSATEQLA	EIRSATEQL	0.5389	146.7	WB	16.00
DRB1_0901	221	HQICPVGAVVATKTD	HQICPVGAV	0.5378	148.5	WB	16.00
DRB1_0901	157	VEVGAPSPLLRGGLA	EVGAPSPLL	0.5375	149.0	WB	16.00
DRB1_0901	153	EVLRSVEVGAPSPLLR	EVGAPSPLL	0.5364	150.8	WB	16.00
DRB1_0901	496	IIGMLSSVVGLGLFNP	IGMLSSVVG	0.5348	153.5	WB	16.00
DRB1_0901	576	IAEITRSLTESLQA	ITRSLTESL	0.5316	158.9	WB	16.00
DRB1_0901	582	RSLTESLQATIAAAQ	LTESLQATI	0.5305	160.8	WB	16.00
DRB1_0901	307	GVLGEIRSATEQLAV	EIRSATEQL	0.5295	162.4	WB	16.00
DRB1_0901	506	GLFNPLSVGAGLILG	LGLFNPLSV	0.5295	162.5	WB	16.00
DRB1_0901	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.5292	163.1	WB	16.00
DRB1_0901	181	LGQPHLSATLGLLPE	HLSATLGLL	0.5290	163.3	WB	16.00
DRB1_0901	266	LLRSHAVTLNDKELN	LRSHAVTLN	0.5286	164.1	WB	16.00
DRB1_0901	311	EIRSATEQLAVSLGS	EIRSATEQL	0.5272	166.6	WB	16.00
DRB1_0901	583	SLTESLQATIAAAQV	LTESLQATI	0.5252	170.2	WB	16.00
DRB1_0901	240	WREIVNANAHLQRA	IVNANAHL	0.5248	171.0	WB	16.00
DRB1_0901	475	PLRRGHKMIIGMRGS	LRRGHKMI	0.5241	172.2	WB	16.00
DRB1_0901	70	VRVVIAGLLKQGKSQ	VRVVIAGLL	0.5240	172.5	WB	16.00
DRB1_0901	184	PHLSATLGLLPEADA	HLSATLGLL	0.5235	173.3	WB	16.00
DRB1_0901	179	GGLGQPHLSATLGLL	HLSATLGLL	0.5222	175.8	WB	16.00

DRB1_0901	490	YGGVVMIGMLSSVVG	MIGMLSSVV	0.5219	176.4	WB	16.00
DRB1_0901	255	RVPMPPIAVSSLLRS	RVPMPPIAV	0.5201	179.9	WB	16.00
DRB1_0901	474	KPLRRGHKMIIGMRG	PLRRGHKMI	0.5199	180.3	WB	16.00
DRB1_0901	239	RWREIVNANAHLQR	IVNANAHL	0.5185	183.0	WB	16.00
DRB1_0901	491	GGVVMIGMLSSVGL	MIGMLSSVV	0.5177	184.5	WB	16.00
DRB1_0901	473	SKPLRRGHKMIIGMR	PLRRGHKMI	0.5175	185.1	WB	16.00
DRB1_0901	581	TRSLTESLQATIAAA	LTESLQATI	0.5175	185.1	WB	16.00
DRB1_0901	558	SRDRLKMIQRLLRDH	RLKMIQRLL	0.5169	186.2	WB	16.00
DRB1_0901	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.5162	187.7	WB	16.00
DRB1_0901	260	IIAVSSLLRSHAVTL	LLRSHAVTL	0.5151	189.8	WB	16.00
DRB1_0901	481	KMIIGMRGSYGGVVM	RGSYGGVV	0.5148	190.5	WB	16.00
DRB1_0901	65	ITDPQVRVVIAGLLK	VRVVIAGLL	0.5147	190.7	WB	16.00
DRB1_0901	237	YPRWREIVNANAHL	IVNANAHL	0.5146	190.9	WB	16.00
DRB1_0901	219	QAHQICPVGAVVATK	HQICPVGAV	0.5130	194.3	WB	16.00
DRB1_0901	84	QLLNSLLNLPAARVG	LLNLPAARV	0.5120	196.4	WB	16.00
DRB1_0901	253	RARVPMPPIAVSSLL	RARVPMPPI	0.5116	197.3	WB	16.00
DRB1_0901	213	EMWFVVRQAHQICPVG	WFVVRQAHQI	0.5115	197.4	WB	16.00
DRB1_0901	487	RGSYGGVVMIGMLSS	RGSYGGVVM	0.5093	202.2	WB	16.00
DRB1_0901	238	PRWREIVNANAHLQ	IVNANAHL	0.5073	206.7	WB	16.00
DRB1_0901	259	PPIAVSSLLRSHAVT	PPIAVSSLL	0.5070	207.3	WB	16.00
DRB1_0901	566	QRLLRDHYREIAEEI	HYREIAEEI	0.5060	209.6	WB	16.00
DRB1_0901	87	NSLLNLPAARVGDDE	LLNLPAARV	0.5056	210.5	WB	16.00
DRB1_0901	76	GLLKQKKSQLLNSLL	LLKQKKSQ	0.5043	213.5	WB	16.00
DRB1_0901	85	LLNLLNLPAARVGD	LLNLPAARV	0.5036	215.2	WB	16.00
DRB1_0901	531	RLLRVRSEAKANVRR	LRVRSEAKA	0.5034	215.6	WB	16.00
DRB1_0901	250	HLQRRARVPMPPIAVS	RARVPMPPI	0.5032	216.0	WB	16.00
DRB1_0901	249	AHLQRRARVPMPPIAV	RARVPMPPI	0.5025	217.6	WB	16.00
DRB1_0901	258	MPIIAVSSLLRSHAV	PPIAVSSLL	0.5021	218.5	WB	16.00
DRB1_0901	318	QLAVSLGSELSVVND	LAVSLGSEL	0.5005	222.5	WB	16.00
DRB1_0901	182	QPHLSATLGLLPEA	HLSATLGLL	0.4993	225.4	WB	16.00
DRB1_0901	89	LLNLPAARVGDDEAT	LLNLPAARV	0.4985	227.3	WB	16.00
DRB1_0901	218	RQAHQICPVGAVVAT	HQICPVGAV	0.4971	230.8	WB	16.00
DRB1_0901	256	VPMPPIAVSSLLRSH	PPIAVSSLL	0.4967	231.8	WB	16.00
DRB1_0901	532	LLRVRSEAKANVRRF	LRVRSEAKA	0.4960	233.5	WB	16.00
DRB1_0901	489	SYGGVVMIGMLSSVV	MIGMLSSVV	0.4955	234.9	WB	16.00
DRB1_0901	88	LLNLPAARVGDDEA	LLNLPAARV	0.4951	235.8	WB	16.00
DRB1_0901	466	KALGRMESKPLRRGH	LRNLESKPL	0.4950	236.1	WB	16.00
DRB1_0901	587	SLQATIAAAQVAETE	QATIAAAQV	0.4937	239.3	WB	32.00
DRB1_0901	530	NRLRVRSEAKANVR	LRVRSEAKA	0.4936	239.7	WB	32.00
DRB1_0901	476	LRRGHKMIIGMRGSY	LRRGHKMI	0.4935	239.9	WB	32.00
DRB1_0901	75	AGLLKQKKSQLLNSL	LLKQKKSQ	0.4931	241.0	WB	32.00
DRB1_0901	77	LLKQKKSQLLNSLLN	LLKQKKSQ	0.4922	243.2	WB	32.00
DRB1_0901	497	MLSSVVGLGLFNPL	MLSSVVGLG	0.4922	243.3	WB	32.00
DRB1_0901	86	LNSLLNLPAARVGD	LLNLPAARV	0.4922	243.4	WB	32.00
DRB1_0901	317	EQLAVSLGSELSVVN	LAVSLGSEL	0.4915	245.0	WB	32.00
DRB1_0901	241	REIVNANAHLQRRAR	IVNANAHL	0.4915	245.2	WB	32.00
DRB1_0901	152	REVLRVEVGAPSLL	EVGAPSLL	0.4914	245.4	WB	32.00
DRB1_0901	588	LQATIAAAQVAETER	QATIAAAQV	0.4904	248.0	WB	32.00
DRB1_0901	444	GLDSVLSAELSPHVM	DSVLSAELS	0.4903	248.4	WB	32.00
DRB1_0901	72	VVIAGLLKQKKSQLL	LKQKKSQ	0.4902	248.7	WB	32.00
DRB1_0901	83	QLLNSLLNLPAARV	LLNLPAARV	0.4902	248.7	WB	32.00
DRB1_0901	533	LRVRSEAKANVRRFV	LRVRSEAKA	0.4884	253.6	WB	32.00
DRB1_0901	319	LAVSLGSELSVVNDP	VSLGSELSV	0.4881	254.2	WB	32.00
DRB1_0901	426	YQRSEALADDVARSF	YQRSEALAD	0.4880	254.6	WB	32.00
DRB1_0901	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.4879	254.9	WB	32.00
DRB1_0901	254	ARVPMPPIAVSSLLR	RVPMPPIAV	0.4875	256.1	WB	32.00
DRB1_0901	212	PEMWFVVRQAHQICPV	WFVVRQAHQI	0.4871	257.1	WB	32.00
DRB1_0901	445	LDSVLSAELSPHVMG	DSVLSAELS	0.4870	257.3	WB	32.00
DRB1_0901	251	LQRRARVPMPPIAVSS	RARVPMPPI	0.4862	259.6	WB	32.00
DRB1_0901	472	ESKPLRRGHKMIIGM	LRRGHKMI	0.4861	260.0	WB	32.00
DRB1_0901	248	AAHLQRRARVPMPPIA	RARVPMPPI	0.4847	264.0	WB	32.00
DRB1_0901	417	AVGLDNFRWAYQRSEA	NVFWWAYQRS	0.4844	264.7	WB	32.00
DRB1_0901	290	KFLSEQVLSRATERV	FLSRATERV	0.4837	266.7	WB	32.00
DRB1_0901	458	MGTDFGRLKALGRME	FGRLKALGR	0.4836	267.1	WB	32.00
DRB1_0901	584	LTESLQATIAAAQVA	LTESLQATI	0.4835	267.4	WB	32.00
DRB1_0901	480	HKMIIGMRGSYGGVV	MRGSYGGVV	0.4808	275.1	WB	32.00
DRB1_0901	38	LIDHTIAIAKLNERRG	LIDHTIAIA	0.4795	279.1	WB	32.00
DRB1_0901	74	IAGLLKQKKSQLLNS	LKQKKSQ	0.4784	282.5	WB	32.00
DRB1_0901	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.4777	284.6	WB	32.00
DRB1_0901	586	ESLQATIAAAQVAET	QATIAAAQV	0.4763	288.9	WB	32.00

DRB1_0901	216	FVRQAHQICPVGAVV	HQICPVGAV	0.4762	289.3	WB	32.00
DRB1_0901	471	MESKPLRRGHKMIIG	PLRRGHKMI	0.4752	292.4	WB	32.00
DRB1_0901	252	QRARVPMPIIAVSSL	RARVPMPII	0.4750	293.0	WB	32.00
DRB1_0901	37	ELIDHTIAIAKLNER	LIDHTIAIA	0.4741	295.9	WB	32.00
DRB1_0901	381	TRFRTVTEDAERQID	RFRTVTEDA	0.4740	296.3	WB	32.00
DRB1_0901	190	LGLLPEADAVLVVSD	LGLLPEADA	0.4730	299.4	WB	32.00
DRB1_0901	380	RTRFRTVTEDAERQI	RFRTVTEDA	0.4726	300.7	WB	32.00
DRB1_0901	507	LFNPLSVGAGLILGR	LFNPLSVGA	0.4723	301.7	WB	32.00
DRB1_0901	257	PMPPIIAVSSLLRSHA	PPIIAVSSLL	0.4717	303.6	WB	32.00
DRB1_0901	222	QICPVGAVVATKTDL	QICPVGAVV	0.4700	309.4	WB	32.00
DRB1_0901	185	DSVLSAELSPHPEADAV	LGLLPEADA	0.4698	310.1	WB	32.00
DRB1_0901	236	LYPRWREIVNANAHAH	LYPRWREIV	0.4687	313.8	WB	32.00
DRB1_0901	223	ICPVGAVVATKTDLY	CPVGAVVAT	0.4685	314.5	WB	32.00
DRB1_0901	529	QNRLLRVRSEAKANV	LVRVRSEAKA	0.4683	315.1	WB	32.00
DRB1_0901	589	QATIAAAQVAETERD	QATIAAAQV	0.4681	315.8	WB	32.00
DRB1_0901	52	GDLVQRLTRARQRIT	LTRARQRIT	0.4678	316.7	WB	32.00
DRB1_0901	575	EIAEEITRSLTESLQ	ITRSLTESL	0.4675	317.7	WB	32.00
DRB1_0901	446	DSVLSAELSPHVMT	LSAELSPHV	0.4672	318.8	WB	32.00
DRB1_0901	516	GLILGRMAYKEDKQN	LGRMAYKED	0.4660	323.2	WB	32.00
DRB1_0901	296	VLSRATERVRAGVLG	VLSRATERV	0.4656	324.3	WB	32.00
DRB1_0901	224	CPVGAVVATKTDLYP	CPVGAVVAT	0.4651	326.1	WB	32.00
DRB1_0901	183	QPHLSATLGLLPEAD	PHLSATLGL	0.4643	329.2	WB	32.00
DRB1_0901	467	ALGRMESKPLRRGHK	LGRMESKPL	0.4639	330.4	WB	32.00
DRB1_0901	315	ATEQLAVSLGSELSV	VSLGSELSV	0.4633	332.4	WB	32.00
DRB1_0901	316	TEQLAVSLGSELSV	LAVSLGSEL	0.4631	333.4	WB	32.00
DRB1_0901	189	TLGLLPEADAVLVVS	LGLLPEADA	0.4627	334.9	WB	32.00
DRB1_0901	73	VIAGLLKQGKSQLLN	LLKQGKSQ	0.4608	341.9	WB	32.00
DRB1_0901	158	EVGAPSPLLRGGLAF	EVGAPSPLL	0.4604	343.3	WB	32.00
DRB1_0901	305	RAGVLGEIRSATEQL	EIRSATEQL	0.4596	346.3	WB	32.00
DRB1_0901	104	VVITVVVSYSAQPSAR	VSYSQAQPSA	0.4595	346.7	WB	32.00
DRB1_0901	488	GSYGGVVMIGMLSSV	GSYGGVVM	0.4594	346.8	WB	32.00
DRB1_0901	515	AGLILGRMAYKEDKQ	LGRMAYKED	0.4589	349.0	WB	32.00
DRB1_0901	36	VELIDHTIAIAKLNE	LIDHTIAIA	0.4586	349.9	WB	32.00
DRB1_0901	295	QVLSRATERVRAGVL	VLSRATERV	0.4580	352.1	WB	32.00
DRB1_0901	234	TDLYPRWREIVNANA	YPRWREIVN	0.4573	354.9	WB	32.00
DRB1_0901	51	RGDLVQRLTRARQRI	RGDLVQRLT	0.4568	356.7	WB	32.00
DRB1_0901	235	RDLYPRWREIVNANA	YPRWREIVN	0.4567	357.2	WB	32.00
DRB1_0901	434	DDVARSFADAGLDSV	ARSFADAGL	0.4565	358.2	WB	32.00
DRB1_0901	35	IVELIDHTIAIAKLN	LIDHTIAIA	0.4540	367.7	WB	32.00
DRB1_0901	470	RMESKPLRRGHKMI I	PLRRGHKMI	0.4535	369.9	WB	32.00
DRB1_0901	468	LGRMESKPLRRGHKM	LGRMESKPL	0.4530	371.8	WB	32.00
DRB1_0901	178	VGGLGQPHLSATLGL	QPHLSATLG	0.4529	372.2	WB	32.00
DRB1_0901	546	FVDDISFVVSQSRD	FVVSQSRD	0.4529	372.3	WB	32.00
DRB1_0901	188	ATLGLLPEADAVLVV	LGLLPEADA	0.4514	378.2	WB	32.00
DRB1_0901	432	LADDVARSFADAGLD	ARSFADAGL	0.4508	380.8	WB	32.00
DRB1_0901	443	AGLDSVLSAELSPHV	DSVLSAELS	0.4506	381.4	WB	32.00
DRB1_0901	548	DDISFVVSQSRDRL	FVVSQSRD	0.4499	384.6	WB	32.00
DRB1_0901	217	VRQAHQICPVGAVVA	HQICPVGAV	0.4493	387.1	WB	32.00
DRB1_0901	517	LILGRMAYKEDKQNR	LGRMAYKED	0.4466	398.7	WB	32.00
DRB1_0901	187	SATLGLLPEADAVLV	LGLLPEADA	0.4465	399.0	WB	32.00
DRB1_0901	247	NAAHLQRARVPMPII	RARVPMPII	0.4465	399.1	WB	32.00
DRB1_0901	163	SPLLRGGLAFIDTPG	LLRGGLAFI	0.4453	404.3	WB	32.00
DRB1_0901	541	ANVRRFVDDISFVVS	NVRRFVDDI	0.4442	408.8	WB	32.00
DRB1_0901	547	VDDISFVVSQSRDR	FVVSQSRD	0.4439	410.3	WB	32.00
DRB1_0901	433	ADDVARSFADAGLDS	ARSFADAGL	0.4431	413.7	WB	32.00
DRB1_0901	294	EQVLSRATERVRAGV	VLSRATERV	0.4430	414.4	WB	32.00
DRB1_0901	291	FLSEQVLSRATERVR	VLSRATERV	0.4429	414.5	WB	32.00
DRB1_0901	211	EPEMWFVRQAHQICP	WFVRQAHQI	0.4415	421.2	WB	32.00
DRB1_0901	528	KQNRLLRVRSEAKAN	LVRVRSEAKA	0.4393	431.1	WB	32.00
DRB1_0901	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.4389	433.1	WB	32.00
DRB1_0901	242	EIVNANA AHLQRARV	IVNANA AHL	0.4375	439.7	WB	32.00
DRB1_0901	549	DANFVVSKQSRDRLK	ISFVVSKQS	0.4374	440.4	WB	32.00
DRB1_0901	540	KISVRRFVDDISFVVS	VRRFVDDIS	0.4370	442.1	WB	32.00
DRB1_0901	321	VSLGSELSVNDPNL	VSLGSELSV	0.4347	453.1	WB	32.00
DRB1_0901	320	AVSLGSELSVNDPN	VSLGSELSV	0.4339	457.3	WB	32.00
DRB1_0901	314	SATEQLAVSLGSELS	LAVSLGSEL	0.4339	457.4	WB	32.00
DRB1_0901	550	ISFVVSKQSRDRLKM	ISFVVSKQS	0.4326	463.8	WB	32.00
DRB1_0901	498	MLSSVVGLGLFNPLS	MLSSVVGLG	0.4314	469.5	WB	32.00
DRB1_0901	573	YREIAEEITRSLTES	YREIAEEIT	0.4304	474.6	WB	32.00
DRB1_0901	435	DVARSFADAGLDSVL	ARSFADAGL	0.4296	478.8	WB	32.00

DRB1_0901	312	IRSATQLAVSLGSE	IRSATQLA	0.4287	483.8	WB	32.00
DRB1_0901	379	LRTRFRFTVTEAERQ	RFRTVTEDA	0.4284	485.4	WB	32.00
DRB1_0901	53	DLVQRLTRARQRITD	LTRARQRIT	0.4281	486.7	WB	32.00
DRB1_0901	302	ERVVRAGVLGEIRSAT	ERVVRAGVLG	0.4279	487.8	WB	32.00
DRB1_0901	293	SEQVLSRATERVRAG	VLSRATERV	0.4276	489.5	WB	32.00
DRB1_0901	514	GAGLILGRMAYKEDK	LGRMAYKED	0.4264	495.6	WB	32.00
DRB1_0901	623	LAGLEPTLTPRASLG	LEPTLTTPRA	0.4239	509.2		50.00
DRB1_0901	442	DAGLDSVLSAELSPH	LDSVLSAEL	0.4226	516.4		50.00
DRB1_0901	50	ERGDLVQRLTRARQR	RGDLVQRLT	0.4215	522.8		50.00
DRB1_0901	243	IVNANAHLQRARVP	IVNANAHL	0.4209	526.3		50.00
DRB1_0901	585	TESLQATIAAAQVAE	QATIAAAQV	0.4206	527.8		50.00
DRB1_0901	539	AKANVRRFVDDISFV	VRRFVDDIS	0.4201	531.0		50.00
DRB1_0901	54	LVQRLTRARQRITDP	LTRARQRIT	0.4197	532.9		50.00
DRB1_0901	563	KMIQRLLRDHYREIA	KMIQRLLRD	0.4195	534.5		50.00
DRB1_0901	162	PSPLLRGGGLAFIDTP	LLRGGGLAFI	0.4184	540.9		50.00
DRB1_0901	233	KTDLYPRWREIVNAN	YPRWREIVN	0.4183	541.4		50.00
DRB1_0901	447	SLSAELSPHVMGTD	SAELSPHVM	0.4182	541.6		50.00
DRB1_0901	292	LSEQVLSRATERVRA	VLSRATERV	0.4178	544.3		50.00
DRB1_0901	301	TERVRAGVLGEIRSA	ERVVRAGVLG	0.4173	546.9		50.00
DRB1_0901	436	VARSFADAGLDSVLS	ARSFADAGL	0.4166	551.4		50.00
DRB1_0901	457	VMGTDGRLKALGRM	FGRLKALGR	0.4161	554.4		50.00
DRB1_0901	625	GLEPTLTTPRASLGRA	LEPTLTTPRA	0.4157	556.9		50.00
DRB1_0901	508	FNPLSVGAGLILGRM	PLSVGAGLI	0.4151	560.6		50.00
DRB1_0901	210	TEPEMWFVRQAHQIC	WFVRQAHQI	0.4141	566.1		50.00
DRB1_0901	542	NVRRFVDDISFVSK	NVRRFVDDI	0.4139	567.7		50.00
DRB1_0901	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.4138	568.2		50.00
DRB1_0901	611	RQLGILSQVNDNLAG	LSQVNDNLA	0.4137	568.8		50.00
DRB1_0901	103	TVVITVVSYSQAQPSA	VSYSQAQPSA	0.4133	571.2		50.00
DRB1_0901	232	TKTDLYPRWREIVNA	LYPRWREIV	0.4122	578.2		50.00
DRB1_0901	346	RKREAQQAVQQTALW	RKREAQQAV	0.4122	578.4		50.00
DRB1_0901	518	ILGRMAYKEDKQNR	LGRMAYKED	0.4112	584.5		50.00
DRB1_0901	39	IDHTIAIAKLNERGD	HTIAIAKLN	0.4109	586.3		50.00
DRB1_0901	604	NRIRELQRQLGILSQ	RIRELQRQL	0.4099	592.6		50.00
DRB1_0901	225	PVGAVVATKTDLYPR	VGAVVATKT	0.4090	598.6		50.00
DRB1_0901	574	REIAEEITRSLTESL	ITRSLTESL	0.4087	600.3		50.00
DRB1_0901	81	KQSQRLNLLNLPAA	KSQLLNSLL	0.4085	601.7		50.00
DRB1_0901	556	GRKDRLLKMIQRLLR	RLKMIQRL	0.4082	603.9		50.00
DRB1_0901	603	DNRIRELQRQLGILS	RIRELQRQL	0.4072	610.4		50.00
DRB1_0901	57	RLTRARQRITDPQVR	RLTRARQRI	0.4069	612.6		50.00
DRB1_0901	15	RARKWGDVTVTQPDDP	WGDTVTQPD	0.4067	613.7		50.00
DRB1_0901	527	DKQNRLLRVRSEAKA	LRVRSEAKA	0.4066	614.1		50.00
DRB1_0901	377	HDLRTRFRFTVTEDAE	RFRTVTEDA	0.4064	615.7		50.00
DRB1_0901	378	DLRTRFRFTVTEDAER	RFRTVTEDA	0.4060	618.1		50.00
DRB1_0901	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.4053	623.2		50.00
DRB1_0901	610	QRQLGILSQVNDNLA	RQLGILSQV	0.4048	626.0		50.00
DRB1_0901	186	LSATLGLLPEADAVL	LGLLPEADA	0.4044	628.9		50.00
DRB1_0901	164	PLLRRGGGLAFIDTPGV	LLRGGGLAFI	0.4040	631.8		50.00
DRB1_0901	300	ATERVRAGVLGEIRS	ERVVRAGVLG	0.4040	631.9		50.00
DRB1_0901	78	LKQGKSQLLNSLLNL	LKQKKSQLL	0.4034	635.6		50.00
DRB1_0901	313	RSATEQLAVSLGSEL	RSATEQLAV	0.4028	639.7		50.00
DRB1_0901	16	ARKWGDVTVTQPDDPR	WGDTVTQPD	0.4027	640.5		50.00
DRB1_0901	416	TAVGDNFVWAYQRSE	NFVWAYQRS	0.4022	644.3		50.00
DRB1_0901	543	VRRFVDDISFVSKQ	VRRFVDDIS	0.4016	648.3		50.00
DRB1_0901	345	RRKREAQQAVQQTAL	RKREAQQAV	0.4011	651.9		50.00
DRB1_0901	80	QGKSQLLNSLLNLPAA	KSQLLNSLL	0.4009	653.1		50.00
DRB1_0901	165	LLRGGGLAFIDTPGVG	LLRGGGLAFI	0.4007	654.5		50.00
DRB1_0901	564	MIQRLLRDHYREIAE	MIQRLLRDH	0.3999	660.8		50.00
DRB1_0901	13	RKRARKWGDVTVTQPD	WGDTVTQPD	0.3997	661.6		50.00
DRB1_0901	82	KSQLLNSLLNLPAA	KSQLLNSLL	0.3997	661.7		50.00
DRB1_0901	605	RIRELQRQLGILSQV	RELQRQLGI	0.3997	661.8		50.00
DRB1_0901	63	QRITDPQVRVVIAGL	ITDPQVRVV	0.3995	663.6		50.00
DRB1_0901	14	KRARKWGDVTVTQPDD	WGDTVTQPD	0.3993	664.8		50.00
DRB1_0901	544	RRFVDDISFVSKQS	ISFVSKQS	0.3986	669.6		50.00
DRB1_0901	613	LGILSQVNDNLAGLE	LSQVNDNLA	0.3965	685.2		50.00
DRB1_0901	334	NLRDRLASDLERRKR	DRLASDLER	0.3954	693.2		50.00
DRB1_0901	56	QRLTRARQRITDPQV	RLTRARQRI	0.3948	697.8		50.00
DRB1_0901	612	QLGILSQVNDNLAGL	LSQVNDNLA	0.3943	701.7		50.00
DRB1_0901	34	VIVELIDHTIAIAKL	LIDHTIAIA	0.3939	704.8		50.00
DRB1_0901	28	DPRRVGVIVELIDHT	RRVGVIVEL	0.3938	705.7		50.00
DRB1_0901	448	VLSAELSPHVMGTD	LSAELSPHV	0.3937	706.4		50.00

DRB1_0901	298	SRATERVRAGVLGEI	VRAGVLGEI	0.3936	707.3	50.00
DRB1_0901	398	DPTAHWAEIGNDVEN	WAEIGNDVE	0.3933	709.5	50.00
DRB1_0901	624	AGLEPTLTTPRASLGR	LEPTLTTPRA	0.3927	714.1	50.00
DRB1_0901	71	DVTIAGLLKQKSQL	LLKQKSQL	0.3924	716.1	50.00
DRB1_0901	40	RHTIAIAKLNERNRGL	HTIAIAKLN	0.3919	720.0	50.00
DRB1_0901	545	RFVDDISFVVSQKSR	ISFVVSQKS	0.3919	720.4	50.00
DRB1_0901	112	SAQPSARLVLAAGPD	SAQPSARLV	0.3916	722.7	50.00
DRB1_0901	397	CDPTAHWAEIGNDVE	AHWAEIGND	0.3915	723.3	50.00
DRB1_0901	161	APSPLLRGGLAFIDT	LLRGGLAFI	0.3908	729.2	50.00
DRB1_0901	513	VGAGLILGRMAYKED	LGRMAYKED	0.3906	730.6	50.00
DRB1_0901	333	PNLRDLASDLERRK	LRDRLASDL	0.3903	733.0	50.00
DRB1_0901	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.3888	745.1	50.00
DRB1_0901	479	GHKMIIGMRGSYGGV	GHKMIIGMR	0.3886	746.5	50.00
DRB1_0901	30	RRVGVIVELIDHTIA	RRVGVIVEL	0.3885	747.0	50.00
DRB1_0901	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.3883	748.9	50.00
DRB1_0901	565	IQRLLRDHYREIAEE	LRDHYREIA	0.3878	752.7	50.00
DRB1_0901	409	DVENAIATAVGDNFV	VENAIATAV	0.3878	753.1	50.00
DRB1_0901	303	RVRAGVLGEIRSATE	VRAGVLGEI	0.3873	757.3	50.00
DRB1_0901	410	VENAIATAVGDNFVW	VENAIATAV	0.3860	768.0	50.00
DRB1_0901	29	PRRVGVIVELIDHTI	RRVGVIVEL	0.3856	770.8	50.00
DRB1_0901	267	LRSHAVTLNDKELNE	LRSHAVTLN	0.3855	771.7	50.00
DRB1_0901	534	RVRSEAKANVRRFVD	VRSEAKANV	0.3851	775.6	50.00
DRB1_0901	231	ATKTDLYPRWREIVN	YPRWREIVN	0.3850	775.8	50.00
DRB1_0901	499	LSDVGLGLFNPLSV	GLFNPLSV	0.3848	778.0	50.00
DRB1_0901	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.3843	781.8	50.00
DRB1_0901	590	ATIAAAQVAETERDN	ATIAAAQVA	0.3841	783.8	50.00
DRB1_0901	304	VRAGVLGEIRSATEQ	VRAGVLGEI	0.3840	784.8	50.00
DRB1_0901	449	LSAELSPHVMGTDFG	LSAELSPHV	0.3839	785.2	50.00
DRB1_0901	117	ARLVLAAGPDGTTAA	LAAGPDGTT	0.3834	789.5	50.00
DRB1_0901	177	GVGGLGQPHLSATLG	QPHLSATLG	0.3822	800.2	50.00
DRB1_0901	297	LSRATERVRAGVLGE	LSRATERVR	0.3817	804.2	50.00
DRB1_0901	191	GLLPEADAVLVVSDT	LLPEADAVL	0.3813	807.7	50.00
DRB1_0901	58	LTRARQRITDPQVRV	LTRARQRIT	0.3812	808.7	50.00
DRB1_0901	192	LLPEADAVLVVSDTS	LLPEADAVL	0.3805	814.7	50.00
DRB1_0901	614	GILSQVNDNLAGELEP	LSQVNDNLA	0.3803	816.7	50.00
DRB1_0901	11	LRNRARKWGDVTQT	ARKWGDVTQ	0.3790	827.8	50.00
DRB1_0901	602	RDRKREQLQRQLGIL	RIRELQRQL	0.3777	839.6	50.00
DRB1_0901	622	NLAGLEPTLTTPRASL	LAGLEPTLT	0.3775	841.7	50.00
DRB1_0901	299	RATERVRAGVLGEIR	ERVRAGVLG	0.3775	842.0	50.00
DRB1_0901	126	DGTTAAVDIPVDDIS	DGTTAAVDI	0.3774	842.4	50.00
DRB1_0901	335	LRDRLASDLERRKRE	DRLASDLER	0.3763	852.8	50.00
DRB1_0901	538	EAKANVRRFVDDISF	VRRFVDDIS	0.3760	855.2	50.00
DRB1_0901	281	EESNFPAIVKFLSEQ	ESNFPAIVK	0.3759	856.3	50.00
DRB1_0901	62	RQRITDPQVRVVV IAG	RITDPQVRV	0.3759	856.5	50.00
DRB1_0901	510	PLSVGAGLILGRMAY	PLSVGAGLI	0.3759	856.6	50.00
DRB1_0901	437	ARSFADAGLDSVLSA	ARSFADAGL	0.3753	862.0	50.00
DRB1_0901	440	FADAGLDSVLSAELS	DSVLSAELS	0.3752	863.2	50.00
DRB1_0901	332	DPNLRDRLASDLERR	LRDRLASDL	0.3747	867.2	50.00
DRB1_0901	363	VLGDGFNDLTADVHD	FNDLTADV	0.3747	867.9	50.00
DRB1_0901	344	ERRKREAQQAVQQT	RKREAQQAV	0.3729	884.1	50.00
DRB1_0901	362	QVLGDGFNDLTADV	DGFNDLTAD	0.3722	891.0	50.00
DRB1_0901	90	LNLPAARVGDDEATV	LNLPAARVG	0.3713	899.8	50.00
DRB1_0901	32	VGIVIVELIDHTIAIA	LIDHTIAIA	0.3693	919.9	50.00
DRB1_0901	166	LRGGLAFIDTPGVGG	LRGGLAFID	0.3687	925.5	50.00
DRB1_0901	116	SARLVLAAGPDGTTA	LVLAAGPDG	0.3679	934.1	50.00
DRB1_0901	55	QRITRARQRITDPQ	LTRARQRIT	0.3674	938.3	50.00
DRB1_0901	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.3658	955.5	50.00
DRB1_0901	477	RRGHKMIIGMRGSYG	RRGHKMIIG	0.3651	962.1	50.00
DRB1_0901	151	GREVLRVEVGAPSPL	VEVGAPSPL	0.3649	964.6	50.00
DRB1_0901	364	LGDGFNDLTADVHD	GFNDLTADV	0.3647	967.1	50.00
DRB1_0901	537	SEAKANVRRFVDDIS	VRRFVDDIS	0.3632	982.3	50.00
DRB1_0901	408	ADVENAIATAVGDNF	VENAIATAV	0.3632	982.3	50.00
DRB1_0901	431	NLADDIARSFADAGL	ARSFADAGL	0.3628	986.4	50.00
DRB1_0901	343	LERRKREAQQAVQQT	RKREAQQAV	0.3627	987.3	50.00
DRB1_0901	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.3622	993.4	50.00
DRB1_0901	246	ANAAHLQRARVPMP	AHLQRARVP	0.3621	993.8	50.00
DRB1_0901	33	GVIVELIDHTIAIAK	LIDHTIAIA	0.3621	993.9	50.00
DRB1_0901	478	RGHKMIIGMRGSYGG	GHKMIIGMR	0.3620	995.4	50.00
DRB1_0901	519	LGRMAYKEDKQNRLL	LGRMAYKED	0.3607	1009.4	50.00
DRB1_0901	322	SLGSELSVNDPNLR	LSVNDPNL	0.3598	1018.9	50.00

DRB1_0901	49	NERGDLVQRLTRARQ	RGDLVQRLT	0.3590	1027.6	50.00
DRB1_0901	376	DHDLRTRFRVTVEDA	RFRTVTEDA	0.3589	1028.9	50.00
DRB1_0901	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.3578	1041.2	50.00
DRB1_0901	361	QQVLGDGFNDLTADV	QQVLGDGFN	0.3575	1044.5	50.00
DRB1_0901	399	PTAHWAEIGNDVENA	WAEIGNDVE	0.3561	1061.0	50.00
DRB1_0901	427	QRSEALADDVARSFA	RSEALADDV	0.3557	1065.0	50.00
DRB1_0901	125	PDGTTAAVDIPVDDI	DGTTAAVDI	0.3557	1065.3	50.00
DRB1_0901	79	KQKKSQLLNSLLNLP	KSQLLNSLL	0.3556	1066.9	50.00
DRB1_0901	27	DDPRRVGVIVELIDH	RRVGVIVEL	0.3542	1082.7	50.00
DRB1_0901	621	DNLEAGLEPTLTPRAS	LAGLEPTLT	0.3538	1088.1	50.00
DRB1_0901	535	VRSEAKANVRRFVDD	VRSEAKANV	0.3534	1092.1	50.00
DRB1_0901	365	GDGFNDLTADVHDHL	FNDLTADV	0.3532	1094.2	50.00
DRB1_0901	141	TDVRRAPHAGGREVL	VRRAPHAGG	0.3531	1096.4	50.00
DRB1_0901	280	NEESNFPPIVKFLSE	NFPPIVKFL	0.3524	1104.0	50.00
DRB1_0901	10	DLRRKRARKWGDTVT	LRRKRARKW	0.3516	1113.6	50.00
DRB1_0901	400	TAHWAEIGNDVENAI	HWAEIGNDV	0.3498	1135.5	50.00
DRB1_0901	551	SFVVSKQSRDRCLKMI	FVVSKQSRD	0.3491	1144.4	50.00
DRB1_0901	366	DGFNDLTADVHDHLR	FNDLTADV	0.3485	1151.3	50.00
DRB1_0901	61	ARQRITDPQVRVIA	RITDPQVRV	0.3480	1157.6	50.00
DRB1_0901	615	ILSQVNDNLAGLEPT	LSQVNDNLA	0.3478	1160.3	50.00
DRB1_0901	124	GPDGTTAAVDIPVDD	DGTTAAVDI	0.3461	1181.8	50.00
DRB1_0901	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.3455	1189.5	50.00
DRB1_0901	160	GAPSPLLRGGLAFID	LLRGGLAFI	0.3455	1190.4	50.00
DRB1_0901	12	RRKRARKWGDTVTQP	ARKWGDTVT	0.3448	1199.4	50.00
DRB1_0901	606	IRELQRQLGILSQVN	ELQRQLGIL	0.3442	1206.3	50.00
DRB1_0901	555	SKQSRDRCLKMIQRLL	RLKMIQRLL	0.3432	1219.7	50.00
DRB1_0901	31	RVGVIVELIDHTIAI	RVGVIVELI	0.3427	1226.5	50.00
DRB1_0901	115	PSARLVLAAGPDGTT	LAAGPDGTT	0.3424	1230.5	50.00
DRB1_0901	113	AQPSARLVLAAGPDG	AQPSARLV	0.3412	1246.8	50.00
DRB1_0901	396	SCDPTAHWAEIGNDV	HWAEIGNDV	0.3405	1256.2	50.00
DRB1_0901	119	LVLAAAGPDGTTAAVD	LVLAAGPDG	0.3404	1257.7	50.00
DRB1_0901	279	LNEESNFPPIVKFLS	NFPPIVKFL	0.3401	1261.5	50.00
DRB1_0901	406	IGNDVENAIATAVGD	IGNDVENAI	0.3392	1273.6	50.00
DRB1_0901	176	PGVGGLGQPHLSATL	VGGLGQPHL	0.3375	1297.2	50.00
DRB1_0901	342	DLERRKREAQQAVQQ	RKREAQQAV	0.3374	1298.2	50.00
DRB1_0901	591	TKAAAQVAETERDNR	IAAAQVAET	0.3374	1298.3	50.00
DRB1_0901	17	RQWGLDVTQPDPRR	WGLDVTQPD	0.3370	1304.2	50.00
DRB1_0901	609	LQRQLGILSQVNDNL	RQLGILSQV	0.3369	1305.2	50.00
DRB1_0901	451	AELSPHVMGTDGFR	LSPHVMGTD	0.3369	1306.0	50.00
DRB1_0901	450	SAELSPHVMGTDGFR	LSPHVMGTD	0.3362	1316.1	50.00
DRB1_0901	59	TRARQRITDPQVRVV	RQRITDPQV	0.3361	1316.5	50.00
DRB1_0901	407	GNDVENAIATAVGDN	VENAIATAV	0.3358	1321.6	50.00
DRB1_0901	123	AGPDGTTAAVDIPVD	DGTTAAVDI	0.3358	1322.0	50.00
DRB1_0901	607	RELQRQLGILSQVND	ELQRQLGIL	0.3349	1333.8	50.00
DRB1_0901	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.3342	1345.1	50.00
DRB1_0901	159	VGAPSPLLRGGLAFI	VGAPSPLL	0.3339	1348.5	50.00
DRB1_0901	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.3336	1352.8	50.00
DRB1_0901	469	GRMESKPLRRGHKMI	PLRRGHKMI	0.3329	1364.1	50.00
DRB1_0901	456	HVMGTDGFRKALGR	FGRLKALGR	0.3320	1377.2	50.00
DRB1_0901	142	VLRAPHAGGREVLR	VRRAPHAGG	0.3316	1383.4	50.00
DRB1_0901	120	LVLAAGPDGTTAAVDI	LAAGPDGTT	0.3301	1404.8	50.00
DRB1_0901	331	NDPNLRDRLASDLER	LRDRLASDL	0.3298	1410.8	50.00
DRB1_0901	355	QQTALWQQVLGDGFN	WQQVLGDGF	0.3296	1413.9	50.00
DRB1_0901	41	HTIAIAKLNERNERGLV	HTIAIAKLN	0.3290	1421.9	50.00
DRB1_0901	167	RGGLAFIDTPGVGGL	RGGLAFIDT	0.3282	1434.8	50.00
DRB1_0901	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.3279	1438.9	50.00
DRB1_0901	608	ELQRQLGILSQVNDN	ELQRQLGIL	0.3279	1439.1	50.00
DRB1_0901	121	LAAGPDGTTAAVDIP	LAAGPDGTT	0.3278	1441.3	50.00
DRB1_0901	367	GFNDLTADVHDHLRT	FNDLTADV	0.3275	1445.1	50.00
DRB1_0901	226	VGAVVATKTDLYPRW	VGAVVATKT	0.3270	1453.4	50.00
DRB1_0901	620	NDNLAGLEPTLTPRA	LAGLEPTLT	0.3257	1473.6	50.00
DRB1_0901	200	LAVSDTSSQEFTEPEM	LAVSDTSSQ	0.3252	1482.8	50.00
DRB1_0901	170	LVFIDTTPGVGGLGQP	LVFIDTPGV	0.3247	1490.5	50.00
DRB1_0901	0	MVPAGLCAYRDLRRK	AGLCAYRDL	0.3237	1506.0	50.00
DRB1_0901	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.3236	1508.4	50.00
DRB1_0901	144	RRAPHAGGREVLRVE	APHAGGREV	0.3226	1524.3	50.00
DRB1_0901	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.3214	1544.5	50.00
DRB1_0901	278	ELNEESNFPPIVKFL	NFPPIVKFL	0.3213	1546.8	50.00
DRB1_0901	91	NLPAARVGDDEATVV	NLPAARVGD	0.3207	1556.5	50.00
DRB1_0901	401	AHWAEIGNDVENAIA	AHWAEIGND	0.3199	1569.0	50.00

DRB1_0901	145	RAPHAGGREVLRVEV	RAPHAGGRE	0.3199	1569.3	50.00
DRB1_0901	356	QTALWQQVLGDGFND	WQQVLGDGF	0.3197	1572.2	50.00
DRB1_0901	2	PAGLCAYRDLRRKRA	AGLCAYRDL	0.3193	1580.2	50.00
DRB1_0901	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.3185	1593.5	50.00
DRB1_0901	102	VPVITVVSYSQAQPS	TVVSYSQAQ	0.3181	1600.7	50.00
DRB1_0901	357	TALWQQVLGDGFNDL	WQQVLGDGF	0.3176	1608.8	50.00
DRB1_0901	438	RSFADAGLDSVLSAE	RSFADAGLD	0.3174	1613.0	50.00
DRB1_0901	1	VPAGLCAYRDLRRKR	AGLCAYRDL	0.3170	1620.3	50.00
DRB1_0901	245	NANAAHLQARVPMP	AHLQARVP	0.3169	1621.4	50.00
DRB1_0901	601	ERDNRIRELQRQLGI	RIRELQRQL	0.3168	1622.8	50.00
DRB1_0901	3	AGLCAYRDLRRKRAR	AGLCAYRDL	0.3166	1626.5	50.00
DRB1_0901	122	AAGPDGTTAAVDIPV	DGTTAAVDI	0.3150	1654.8	50.00
DRB1_0901	127	GTAAVDIPVDDIST	GTAAVDIP	0.3149	1656.3	50.00
DRB1_0901	618	QVNDNLAGLEPTLTP	LAGLEPTLT	0.3148	1657.9	50.00
DRB1_0901	114	QPSARLVLAAGPDGT	QPSARLVLA	0.3143	1668.1	50.00
DRB1_0901	199	LVVSDTSQEFTEPE	LVVSDTSQE	0.3135	1682.2	50.00
DRB1_0901	140	STDVRRAPHAGGREV	RAPHAGGRE	0.3134	1683.6	50.00
DRB1_0901	347	KREAQQAVQQTALWQ	KREAQQAVQ	0.3131	1689.4	50.00
DRB1_0901	48	LNERGDLVQRLTRAR	RGDLVQRLT	0.3125	1700.5	50.00
DRB1_0901	26	PDDPRRVGVIVELID	RRVGVIVEL	0.3124	1702.8	50.00
DRB1_0901	411	ENAIATAVGDNFVWA	NAIATAVGD	0.3103	1741.8	50.00
DRB1_0901	198	AVLVVSDTSQEFTEP	LVVSDTSQE	0.3089	1768.7	50.00
DRB1_0901	150	GGREVLRVEVGAPSP	LRVEVGAPS	0.3089	1768.7	50.00
DRB1_0901	149	AGREVLRVEVGAPS	GGREVLRVE	0.3085	1776.0	50.00
DRB1_0901	193	LPEADAVLVVSDTSQ	LPEADAVLV	0.3069	1806.8	50.00
DRB1_0901	341	SDLERRKREAQQAVQ	RKREAQQAV	0.3044	1856.0	50.00
DRB1_0901	358	ALWQQVLGDGFNDLT	QQVLGDGFN	0.3043	1859.0	50.00
DRB1_0901	47	KLNERGDLVQRLTRA	KLNERGDLV	0.3034	1875.4	50.00
DRB1_0901	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.3017	1910.2	50.00
DRB1_0901	327	LSVNDPNLRDRLAS	LSVNDPNL	0.3017	1910.9	50.00
DRB1_0901	619	VNDNLAGLEPTLTPR	LAGLEPTLT	0.3014	1917.8	50.00
DRB1_0901	46	AKLNERGDLVQRLTR	KLNERGDLV	0.2987	1975.1	50.00
DRB1_0901	244	VNANAAHLQARVPM	VNANAAHLQ	0.2983	1983.5	50.00
DRB1_0901	439	SFADAGLDSVLSAEL	FADAGLDSV	0.2977	1996.2	50.00
DRB1_0901	405	EIGNDVENAIATAVG	IGNDVENAI	0.2973	2004.3	50.00
DRB1_0901	7	YRDLRRKRARKWGD	YRDLRRKRA	0.2971	2008.5	50.00
DRB1_0901	336	RDRLASDLERRKREA	RDRLASDLE	0.2969	2012.1	50.00
DRB1_0901	202	VSDTSQEFTEPEMWF	SQEFTEPEM	0.2964	2024.1	50.00
DRB1_0901	169	GLAFIDTPGVGGLGQ	FIDTPGVGG	0.2954	2046.1	50.00
DRB1_0901	8	YRDLRRKRARKWGDT	DLRRKRARK	0.2953	2048.3	50.00
DRB1_0901	60	RARQRITDPQVRVVI	RQRITDPQV	0.2946	2064.3	50.00
DRB1_0901	428	RSEALADDVARSFAD	RSEALADDV	0.2936	2087.0	50.00
DRB1_0901	352	QAVQQTALWQQVLGD	QTALWQQVL	0.2929	2101.0	50.00
DRB1_0901	351	QQAVQQTALWQQVLG	QQAVQQTAL	0.2928	2104.5	50.00
DRB1_0901	430	EALADDVARSFADAG	VARSFADAG	0.2919	2123.9	50.00
DRB1_0901	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.2918	2127.5	50.00
DRB1_0901	452	ELSPHVMGTDGFRK	LSPHVMGTD	0.2912	2140.4	50.00
DRB1_0901	536	RSEAKANVRRFVDDI	RSEAKANVR	0.2907	2152.1	50.00
DRB1_0901	18	KWGDTVTQPDPRRV	WGDTVTQPD	0.2906	2154.1	50.00
DRB1_0901	92	LPAARVGDDEATVVI	LPAARVGDD	0.2901	2165.6	50.00
DRB1_0901	600	TERDNRIRELQRQLG	RIRELQRQL	0.2897	2175.2	50.00
DRB1_0901	168	GGLAFIDTPGVGGLG	FIDTPGVGG	0.2897	2175.3	50.00
DRB1_0901	146	APHAGGREVLRVEVG	APHAGGREV	0.2894	2183.3	50.00
DRB1_0901	354	VQQTALWQQVLGDGF	WQQVLGDGF	0.2892	2186.9	50.00
DRB1_0901	205	TSQEFTEPEMWFVRQ	SQEFTEPEM	0.2887	2199.3	50.00
DRB1_0901	395	DSCDPTAHWAEIGND	DPTAHWAEI	0.2882	2211.8	50.00
DRB1_0901	512	SVGAGLILGRMAYKE	AGLILGRMA	0.2871	2237.5	50.00
DRB1_0901	359	LWQQVLGDGFNDLTA	QQVLGDGFN	0.2868	2244.5	50.00
DRB1_0901	204	DTSQEFTEPEMWFVR	SQEFTEPEM	0.2868	2245.4	50.00
DRB1_0901	6	CAYRDLRRKRARKWG	YRDLRRKRA	0.2853	2282.4	50.00
DRB1_0901	196	ADAVLVVSDTSQEFT	LVVSDTSQE	0.2852	2284.2	50.00
DRB1_0901	9	FDLRRKRARKWGDTV	LRRKRARKW	0.2851	2287.3	50.00
DRB1_0901	175	TPRGVGLGQPHLSAT	VGGLGQPHL	0.2851	2288.4	50.00
DRB1_0901	101	EATVVITVVSYSQAQ	ITVVSYSQA	0.2845	2303.2	50.00
DRB1_0901	206	SQEFTEPEMWFVRQA	SQEFTEPEM	0.2844	2303.6	50.00
DRB1_0901	197	DAVLVVSDTSQEFT	LVVSDTSQE	0.2828	2345.2	50.00
DRB1_0901	45	IAKLNERGDLVQRLT	RGDLVQRLT	0.2815	2379.2	50.00
DRB1_0901	208	EFTEPEMWFVRQAHQ	EFTEPEMWF	0.2812	2386.2	50.00
DRB1_0901	402	HWAEIGNDVENAIAT	HWAEIGNDV	0.2808	2396.0	50.00
DRB1_0901	203	SDTSQEFTEPEMWFV	SQEFTEPEM	0.2806	2400.9	50.00

DRB1_0901	139	ISTDVRRAPHAGGRE	VRRAPHAGG	0.2804	2405.6	50.00
DRB1_0901	617	SQVNDNLAGLEPTLT	QVNDNLAGL	0.2801	2415.3	50.00
DRB1_0901	201	VVSDTSQEFTEPEMW	VSSDTSQEF	0.2792	2437.9	50.00
DRB1_0901	230	VSPKTDLYPRWREIV	LYPRWREIV	0.2788	2448.7	50.00
DRB1_0901	453	LSPHVMGTDFGRLKA	LSPHVMGTD	0.2783	2461.4	50.00
DRB1_0901	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.2781	2466.7	50.00
DRB1_0901	173	IDTPGVGGLGQPHLS	VGGLGQPHL	0.2778	2474.8	50.00
DRB1_0901	330	VNDPNLRDRLASDLE	LRDRLASDL	0.2765	2508.9	50.00
DRB1_0901	348	REAAQAVQQTALWQQ	QAVQQTAL	0.2753	2542.0	50.00
DRB1_0901	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.2737	2586.0	50.00
DRB1_0901	592	IAAAQVAETERDNRI	IAAAQVAET	0.2725	2619.9	50.00
DRB1_0901	412	NAIATAVGDNFVWAY	NAIATAVGD	0.2715	2649.4	50.00
DRB1_0901	383	FRTVTEDAERQIDSC	VTEDAERQI	0.2697	2702.4	50.00
DRB1_0901	19	WGDTVVTQPDDPRRVG	WGDTVVTQPD	0.2676	2765.1	50.00
DRB1_0901	350	AQQAVQQTALWQQVL	QAVQQTAL	0.2665	2796.4	50.00
DRB1_0901	455	PHVMGTDFGRLKALG	PHVMGTDFG	0.2662	2807.2	50.00
DRB1_0901	148	HAGGREVLRVEVGAP	GGREVLVRE	0.2654	2830.9	50.00
DRB1_0901	227	GAVVATKTDLYPRWR	VVATKTDLY	0.2652	2836.1	50.00
DRB1_0901	368	FNDLTADVHDHLRTR	FNDLTADV	0.2649	2844.9	50.00
DRB1_0901	353	AVQQTALWQQVLGDG	QQTALWQQV	0.2587	3043.4	50.00
DRB1_0901	375	VDHDLRTRFRVTED	TRFRVTED	0.2563	3124.4	50.00
DRB1_0901	195	EADAVLVVSDTSQEF	LVVSDTSQE	0.2556	3146.7	50.00
DRB1_0901	174	DTPGVGGLGQPHLSA	VGGLGQPHL	0.2556	3148.0	50.00
DRB1_0901	277	KELNEESNFPAIVKF	ESNFPAIVK	0.2548	3172.8	50.00
DRB1_0901	403	WAEIGNDVENAIATA	WAEIGNDVE	0.2547	3177.2	50.00
DRB1_0901	349	EAQQAVQQTALWQQV	QAVQQTAL	0.2530	3237.5	50.00
DRB1_0901	429	SEALADDVARSFADA	SEALADDVA	0.2527	3247.2	50.00
DRB1_0901	5	LCAYRDLRRKRARKW	YRDLRRKRA	0.2516	3287.8	50.00
DRB1_0901	329	VVNDPNLRDRLASDL	LRDRLASDL	0.2514	3294.4	50.00
DRB1_0901	207	QEFTEPEMWFVRQAH	IGTEPEMWF	0.2513	3297.1	50.00
DRB1_0901	404	AEIGNDVENAIATAV	IGNDVENAI	0.2481	3412.6	50.00
DRB1_0901	337	DRLASDLERRKREAQ	DRLASDLER	0.2478	3423.1	50.00
DRB1_0901	385	TVTEDAERQIDSCDP	VTEDAERQI	0.2473	3443.8	50.00
DRB1_0901	454	SPHVMGTDFGRLKAL	PHVMGTDFG	0.2462	3483.9	50.00
DRB1_0901	147	PHAGGREVLRVEVGA	AGGREVLRV	0.2461	3486.4	50.00
DRB1_0901	138	DISTAVRRAPHAGGR	VRRAPHAGG	0.2458	3499.0	50.00
DRB1_0901	128	TTAADVIPVDDISTD	TTAAVDIPV	0.2450	3529.6	50.00
DRB1_0901	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.2450	3530.5	50.00
DRB1_0901	384	RTVTEDAERQIDSCD	VTEDAERQI	0.2443	3558.1	50.00
DRB1_0901	599	ETERDNRIRELQRQL	RIRELQRQL	0.2407	3696.0	50.00
DRB1_0901	276	DKELNEESNFPAIVK	ESNFPAIVK	0.2401	3721.5	50.00
DRB1_0901	229	VVATKTDLYPRWREI	VVATKTDLY	0.2393	3752.4	50.00
DRB1_0901	328	SVVNDPNLRDRLASD	VVNDPNLRD	0.2367	3859.5	50.00
DRB1_0901	393	QIDSCDPTAHWAEIG	QIDSCDPTA	0.2363	3876.9	50.00
DRB1_0901	340	ASDLERRKREAQQAV	RKREAQQAV	0.2352	3924.3	50.00
DRB1_0901	194	PEADAVLVVSDTSQE	LVVSDTSQE	0.2332	4010.4	50.00
DRB1_0901	228	AVVATKTDLYPRWRE	AVVATKTDL	0.2330	4017.2	50.00
DRB1_0901	268	RSHAVTLNDKELNEE	RSHAVTLND	0.2318	4070.6	50.00
DRB1_0901	524	YKEDKQNRLLRVRSE	YKEDKQNRL	0.2314	4087.2	50.00
DRB1_0901	42	TAIAKLNREGDLVQ	KLNERGDLV	0.2312	4097.6	50.00
DRB1_0901	100	DEATVVITVVSYSAQ	VVITVVSYS	0.2290	4195.7	50.00
DRB1_0901	24	TQPDDPRRVGVIVEL	RRVGVIVEL	0.2264	4315.6	50.00
DRB1_0901	526	EDKQNRLLRVRSEAK	KQNRLLRVR	0.2239	4434.3	50.00
DRB1_0901	43	IAIAKLNREGDLVQR	KLNERGDLV	0.2222	4518.9	50.00
DRB1_0901	394	IDSCDPTAHWAEIGN	DPTAHWAEI	0.2215	4550.0	50.00
DRB1_0901	137	DDISTDVRRAPHAGG	VRRAPHAGG	0.2213	4560.8	50.00
DRB1_0901	554	VSKQSRDRLKMIQRL	VSKQSRDRL	0.2200	4625.5	50.00
DRB1_0901	98	GDDEATVVITVVSYS	VVITVVSYS	0.2194	4656.1	50.00
DRB1_0901	44	AIKLNREGDLVQRL	KLNERGDLV	0.2190	4678.7	50.00
DRB1_0901	553	VVSKQSRDRLKMIQR	VSKQSRDRL	0.2176	4748.1	50.00
DRB1_0901	99	DDEATVVITVVSYS	VVITVVSYS	0.2161	4823.6	50.00
DRB1_0901	93	MAARVGDDEATVVIT	AARVGDDEA	0.2125	5018.4	50.00
DRB1_0901	522	PAYKEDKQNRLLRVR	YKEDKQNRL	0.2092	5201.2	50.00
DRB1_0901	523	AYKEDKQNRLLRVRS	YKEDKQNRL	0.2091	5202.4	50.00
DRB1_0901	94	AARVGDDEATVVITV	AARVGDDEA	0.2089	5218.4	50.00
DRB1_0901	386	VTEDAERQIDSCDPT	VTEDAERQI	0.2087	5230.2	50.00
DRB1_0901	521	RMAYKEDKQNRLLRV	YKEDKQNRL	0.2077	5282.8	50.00
DRB1_0901	520	GRMAYKEDKQNRLLR	YKEDKQNRL	0.2065	5355.7	50.00
DRB1_0901	391	ERQIDSCDPTAHWAE	QIDSCDPTA	0.2061	5374.9	50.00
DRB1_0901	95	ARVGDDEATVVITVV	ARVGDDEAT	0.2055	5411.3	50.00

DRB1_0901	392	RQIDSCDPTAHWAEI	QIDSCDPTA	0.2044	5474.2	50.00
DRB1_0901	525	KEDKQNRLLRVSEA	QNRLLRVRS	0.2014	5656.9	50.00
DRB1_0901	414	IATAVGDNFVWAYQR	IATAVGDNF	0.2007	5702.7	50.00
DRB1_0901	413	AIATAVGDNFVWAYQ	ATAVGDNFV	0.1965	5963.3	50.00
DRB1_0901	369	NDLTADVVDHDLRTRF	DLTADVVDHD	0.1959	6007.2	50.00
DRB1_0901	97	VGDDEATVVITVVS	VGDDEATVV	0.1958	6013.3	50.00
DRB1_0901	22	TVTQPDDPRRVGVIV	TVTQPDDPR	0.1941	6122.0	50.00
DRB1_0901	390	AERQIDSCDPTAHWA	QIDSCDPTA	0.1924	6232.6	50.00
DRB1_0901	593	AAAQVAETERDNRIR	AQVAETERD	0.1918	6278.2	50.00
DRB1_0901	96	RVGDDEATVVITVVS	VGDDEATVV	0.1902	6386.5	50.00
DRB1_0901	370	DLTADVVDHDLRTRFR	DLTADVVDHD	0.1895	6434.6	50.00
DRB1_0901	374	DVDHDLRTRFRTRVTE	LRTRFRTRVT	0.1876	6570.1	50.00
DRB1_0901	129	TAAVDIPVDDISTDV	AVDIPVDDI	0.1866	6643.1	50.00
DRB1_0901	388	EDAERQIDSCDPTAH	QIDSCDPTA	0.1834	6876.9	50.00
DRB1_0901	389	DAERQIDSCDPTAHW	QIDSCDPTA	0.1829	6908.9	50.00
DRB1_0901	387	TEDAERQIDSCDPTA	QIDSCDPTA	0.1803	7111.4	50.00
DRB1_0901	23	VTQPDDPRRVGVIVE	VTQPDDPRR	0.1801	7124.8	50.00
DRB1_0901	133	DIPVDDISTDVRRAP	PVDDISTDV	0.1793	7184.0	50.00
DRB1_0901	132	VDIPVDDISTDVRRRA	IPVDDISTD	0.1770	7367.1	50.00
DRB1_0901	21	DTVTQPDDPRRVGVI	TVTQPDDPR	0.1762	7427.6	50.00
DRB1_0901	339	LASDLERRKREAQQA	RRKREAQQA	0.1733	7663.6	50.00
DRB1_0901	595	AQVAETERDNRIREL	AQVAETERD	0.1729	7698.9	50.00
DRB1_0901	131	AVDIPVDDISTDVRR	AVDIPVDDI	0.1723	7749.5	50.00
DRB1_0901	134	IPVDDISTDVRRAPH	IPVDDISTD	0.1719	7781.1	50.00
DRB1_0901	130	AAVDIPVDDISTDVR	AVDIPVDDI	0.1682	8100.8	50.00
DRB1_0901	594	AAQVAETERDNRIRE	AQVAETERD	0.1662	8275.7	50.00
DRB1_0901	269	SHAVTLNDKELNEES	SHAVTLNDK	0.1661	8290.8	50.00
DRB1_0901	373	ADVVDHDLRTRFRTRV	LRTRFRTRVT	0.1660	8297.0	50.00
DRB1_0901	274	LNDKELNEESNFPAI	DKELNEESN	0.1645	8433.4	50.00
DRB1_0901	20	GDTVVTQPDDPRRVGV	TVTQPDDPR	0.1624	8628.5	50.00
DRB1_0901	275	NDKELNEESNFPAIV	ELNEESNFP	0.1623	8639.8	50.00
DRB1_0901	598	AETERDNRIRELQRQ	ERDNRIREL	0.1605	8803.7	50.00
DRB1_0901	338	RLASDLERRKREAQQ	ERRKREAQQ	0.1575	9095.9	50.00
DRB1_0901	270	HAVTLNDKELNEESN	AVTLNDKEL	0.1553	9313.0	50.00
DRB1_0901	135	PVDDISTDVRRAPHA	PVDDISTDV	0.1520	9651.7	50.00
DRB1_0901	371	LTADVVDHDLRTRFRTR	LTADVVDHDL	0.1488	9990.1	50.00
DRB1_0901	272	VTLNDKELNEESNFP	VTLNDKELN	0.1460	10298.9	50.00
DRB1_0901	597	VAETERDNRIRELQR	ERDNRIREL	0.1449	10425.1	50.00
DRB1_0901	136	VDDISTDVRRAPHAG	DVRRAPHAG	0.1436	10570.0	50.00
DRB1_0901	273	TLNDKELNEESNFPA	DKELNEESN	0.1426	10690.2	50.00
DRB1_0901	271	AVTLNDKELNEESNF	AVTLNDKEL	0.1418	10782.7	50.00
DRB1_0901	596	QVAETERDNRIRELQ	ERDNRIREL	0.1384	11183.6	50.00
DRB1_0901	372	TADVVDHDLRTRFRTRV	DHDLRTRFR	0.1269	12667.3	50.00

Allele: DRB1_0901. Number of high binders 13. Number of weak binders 226. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_1101	462	FGRLKALGRMESKPL	LKALGRMES	0.8943	3.1	SB	0.05
DRB1_1101	461	DFGRLKALGRMESKP	LKALGRMES	0.8850	3.5	SB	0.05
DRB1_1101	460	TDFGRLKALGRMESK	LKALGRMES	0.8740	3.9	SB	0.05
DRB1_1101	559	RDRLKMIQRLLRDHY	LKMIQRLLR	0.8673	4.2	SB	0.05
DRB1_1101	463	GRLKALGRMESKPLR	LKALGRMES	0.8658	4.3	SB	0.10
DRB1_1101	560	DRLKMIQRLLRDHYR	LKMIQRLLR	0.8527	4.9	SB	0.10
DRB1_1101	558	SRDLKMIQRLLRDH	LKMIQRLLR	0.8500	5.1	SB	0.10
DRB1_1101	459	GTFGRLKALGRMES	LKALGRMES	0.8479	5.2	SB	0.10
DRB1_1101	561	RLKMIQRLLRDHYRE	LKMIQRLLR	0.8440	5.4	SB	0.15
DRB1_1101	557	QSRDLKMIQRLLRD	LKMIQRLLR	0.8243	6.7	SB	0.30
DRB1_1101	464	RLKALGRMESKPLRR	LKALGRMES	0.8209	6.9	SB	0.30
DRB1_1101	260	IIAVSSLLRSHAVTL	AVSSLLRSH	0.8049	8.3	SB	0.40
DRB1_1101	556	KQSRDLKMIQRLLR	LKMIQRLLR	0.8024	8.5	SB	0.40
DRB1_1101	259	PIIAVSSLLRSHAVT	IAVSSLLRS	0.7873	10.0	SB	0.80
DRB1_1101	261	IAVSSLLRSHAVTLN	AVSSLLRSH	0.7833	10.4	SB	0.80
DRB1_1101	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.7691	12.2	SB	0.80
DRB1_1101	480	HKMIIGMRGSYGGVV	HKMIIGMRG	0.7684	12.2	SB	0.80
DRB1_1101	479	GHKMIIGMRGSYGGV	HKMIIGMRG	0.7620	13.1	SB	0.80
DRB1_1101	258	MPIIAVSSLLRSHAV	IAVSSLLRS	0.7519	14.6	SB	1.00

DRB1_1101	458	MGTDFGRLKALGRME	FGRLKALGR	0.7510	14.8	SB	1.00
DRB1_1101	5	LCAYRDLRRKRARKW	YRDLRRKRA	0.7383	17.0	SB	2.00
DRB1_1101	478	RGHKMIIGMRGSYGG	HKMIIGMRG	0.7350	17.6	SB	2.00
DRB1_1101	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.7222	20.2	SB	2.00
DRB1_1101	477	RRGHKMIIGMRGSYG	HKMIIGMRG	0.7139	22.1	SB	2.00
DRB1_1101	6	CAYRDLRRKRARKWG	YRDLRRKRA	0.7089	23.3	SB	2.00
DRB1_1101	262	AVSSLLRSHAVTLND	VSSLLRSHA	0.6935	27.6	SB	4.00
DRB1_1101	83	SQLLNSLLNLPAARV	LNSLLNLP	0.6916	28.1	SB	4.00
DRB1_1101	257	PMPPIAVSSLLRSHA	IAVSSLLRS	0.6907	28.4	SB	4.00
DRB1_1101	528	KQNRLLRVRSEAKAN	QNRLLRVRS	0.6895	28.8	SB	4.00
DRB1_1101	476	LNRRLHKMIIGMRGSY	HKMIIGMRG	0.6891	28.9	SB	4.00
DRB1_1101	603	DNRIRELQRQLGILS	IRELQRQLG	0.6884	29.1	SB	4.00
DRB1_1101	527	DKQNRLLRVRSEAKA	QNRLLRVRS	0.6877	29.3	SB	4.00
DRB1_1101	7	AYRDLRRKRARKWGD	YRDLRRKRA	0.6872	29.5	SB	4.00
DRB1_1101	604	NRIRELQRQLGILSQ	IRELQRQLG	0.6761	33.3	SB	4.00
DRB1_1101	481	KMIIGMRGSYGGVVM	MIIGMRGSY	0.6741	34.0	SB	4.00
DRB1_1101	84	QLLNSLLNLPAARVG	LNSLLNLP	0.6718	34.9	SB	4.00
DRB1_1101	3	AGLCAYRDLRRKRAR	YRDLRRKRA	0.6711	35.1	SB	4.00
DRB1_1101	529	QNRLLRVRSEAKANV	QNRLLRVRS	0.6685	36.1	SB	4.00
DRB1_1101	82	KSQLLNSLLNLPAAAR	LNSLLNLP	0.6656	37.3	SB	4.00
DRB1_1101	475	PLRRGHKMIIGMRGS	HKMIIGMRG	0.6656	37.3	SB	4.00
DRB1_1101	287	AIVKFLSEQVLSRAT	VKFLSEQVL	0.6647	37.6	SB	4.00
DRB1_1101	549	DISFVVSKQSRDRLK	ISFVVSKQS	0.6604	39.4	SB	4.00
DRB1_1101	605	IRELQRQLGILSQV	IRELQRQLG	0.6575	40.7	SB	4.00
DRB1_1101	526	EDKQNRLLRVRSEAK	QNRLLRVRS	0.6570	40.9	SB	4.00
DRB1_1101	548	DDISFVVSKQSRDRL	ISFVVSKQS	0.6566	41.1	SB	4.00
DRB1_1101	492	GVMIGMLSSVVGLG	VVMIGMLSS	0.6562	41.2	SB	4.00
DRB1_1101	52	GDLVQRLTRARQRIT	VQRLTRARQ	0.6545	42.0	SB	4.00
DRB1_1101	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.6529	42.7	SB	4.00
DRB1_1101	85	LLNSLLNLPAARVGD	LNSLLNLP	0.6504	43.9	SB	4.00
DRB1_1101	550	ISFVVSKQSRDRLKM	ISFVVSKQS	0.6492	44.5	SB	4.00
DRB1_1101	491	GGVVMIGMLSSVVGL	VVMIGMLSS	0.6480	45.1	SB	4.00
DRB1_1101	465	LKALGRMESKPLRRG	LKALGRMES	0.6438	47.2	SB	4.00
DRB1_1101	285	FPAIVKFLSEQVLSR	IVKFLSEQV	0.6435	47.3	SB	4.00
DRB1_1101	71	RVVIAGLLKQKGSQ	VIAGLLKQG	0.6422	48.0	SB	4.00
DRB1_1101	602	KPNRIRELQRQLGIL	IRELQRQLG	0.6406	48.8	SB	8.00
DRB1_1101	474	RDLRRGHKMIIGMRG	LRRGHKMI	0.6338	52.6	WB	8.00
DRB1_1101	288	IVKFLSEQVLSRATE	VKFLSEQVL	0.6329	53.1	WB	8.00
DRB1_1101	70	VRVVIAGLLKQKGSQ	VIAGLLKQG	0.6322	53.5	WB	8.00
DRB1_1101	490	YGGVVMIGMLSSVVG	VVMIGMLSS	0.6314	54.0	WB	8.00
DRB1_1101	53	DLVQRLTRARQRITD	VQRLTRARQ	0.6312	54.1	WB	8.00
DRB1_1101	72	VVIAGLLKQKGSQ	VIAGLLKQG	0.6277	56.1	WB	8.00
DRB1_1101	51	RGDLVQRLTRARQRI	VQRLTRARQ	0.6266	56.8	WB	8.00
DRB1_1101	547	VDDISFVVSKQSRDR	ISFVVSKQS	0.6244	58.2	WB	8.00
DRB1_1101	81	GKSQLLNSLLNLPAA	SQLLNSLLN	0.6223	59.5	WB	8.00
DRB1_1101	54	LVQRLTRARQRITDP	VQRLTRARQ	0.6190	61.7	WB	8.00
DRB1_1101	493	VVMIGMLSSVVGLGL	VVMIGMLSS	0.6150	64.4	WB	8.00
DRB1_1101	563	KMIQRLLRDHYREIA	IQRLLRDHY	0.6085	69.1	WB	8.00
DRB1_1101	473	SKPLRRGHKMIIGMR	LRRGHKMI	0.6085	69.1	WB	8.00
DRB1_1101	2	PAGLCAYRDLRRKRA	YRDLRRKRA	0.5986	77.0	WB	8.00
DRB1_1101	482	MIIGMRGSYGGVVM	MIIGMRGSY	0.5960	79.1	WB	8.00
DRB1_1101	8	YRDLRRKRARKWGD	YRDLRRKRA	0.5941	80.8	WB	8.00
DRB1_1101	263	VSSLLRSHAVTLNDK	VSSLLRSHA	0.5927	82.0	WB	8.00
DRB1_1101	69	QVRVVIAGLLKQKGS	VVIAGLLKQ	0.5895	84.9	WB	8.00
DRB1_1101	606	IRELQRQLGILSQVN	IRELQRQLG	0.5891	85.3	WB	8.00
DRB1_1101	80	QKSQLLNSLLNLP	SQLLNSLLN	0.5783	95.9	WB	8.00
DRB1_1101	489	SYGGVVMIGMLSSVV	VVMIGMLSS	0.5772	97.0	WB	8.00
DRB1_1101	256	VPMPPIAVSSLLRSH	PIAVSSLLR	0.5747	99.6	WB	8.00
DRB1_1101	525	KEDKQNRLLRVRSEA	QNRLLRVRS	0.5738	100.7	WB	8.00
DRB1_1101	472	ESKPLRRGHKMIIGM	LRRGHKMI	0.5738	100.7	WB	8.00
DRB1_1101	55	VQRLTRARQRITDPQ	VQRLTRARQ	0.5734	101.1	WB	8.00
DRB1_1101	289	NKFLSEQVLSRATER	KFLSEQVLS	0.5733	101.2	WB	8.00
DRB1_1101	284	VFPALVSEVFLSEQVLS	IVKFLSEQV	0.5687	106.3	WB	8.00
DRB1_1101	555	SKQSRDRLKMIQRL	RDRLKMIQR	0.5670	108.2	WB	8.00
DRB1_1101	457	VMGTDFGRLKALGRM	FGRLKALGR	0.5668	108.5	WB	16.00
DRB1_1101	601	ERDNRIRELQRQLGI	IRELQRQLG	0.5621	114.2	WB	16.00
DRB1_1101	514	GAGLILGRMAYKEDK	AGLILGRMA	0.5598	117.1	WB	16.00
DRB1_1101	50	ERGDLVQRLTRARQR	VQRLTRARQ	0.5583	119.0	WB	16.00
DRB1_1101	513	VGAGLILGRMAYKED	GLILGRMAY	0.5576	119.9	WB	16.00
DRB1_1101	86	LNSLLNLPAARVGDD	LNSLLNLP	0.5562	121.8	WB	16.00

DRB1_1101	73	VIAGLLKQGKSQLLN	VIAGLLKQG	0.5527	126.4	WB	16.00
DRB1_1101	471	MESKPLRRGHKMIIG	LRRGHKMI I	0.5433	139.9	WB	16.00
DRB1_1101	512	SVGAGLILGRMAYKE	GLILGRMAY	0.5416	142.5	WB	16.00
DRB1_1101	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.5405	144.2	WB	16.00
DRB1_1101	470	RMESKPLRRGHKMI I	SKPLRRGHK	0.5403	144.7	WB	16.00
DRB1_1101	546	FVDDISFVVSQSRD	ISFVVSQVS	0.5380	148.3	WB	16.00
DRB1_1101	515	AGLILGRMAYKEDKQ	LILGRMAYK	0.5365	150.6	WB	16.00
DRB1_1101	104	VVITVVSYSQAQPSAR	VITVVSYS A	0.5357	152.0	WB	16.00
DRB1_1101	103	TVVITVVSYSQAQPSA	VITVVSYS A	0.5317	158.7	WB	16.00
DRB1_1101	531	QLLRVRSEAKANVRR	LLRVRSEAK	0.5189	182.3	WB	16.00
DRB1_1101	68	PQVRRVVIAGLLKQGV	VVIAGLLKQ	0.5163	187.5	WB	16.00
DRB1_1101	564	MIQRLLLRDHYREIAE	IQRLLLRDHY	0.5114	197.7	WB	16.00
DRB1_1101	488	GSYGGVVMIGMLSSV	VVMIGMLSS	0.5099	200.8	WB	16.00
DRB1_1101	290	KFLSEQVLSRATERV	KFLSEQVLS	0.5096	201.4	WB	16.00
DRB1_1101	456	HVMGTDGRLKALGR	FGRLKALGR	0.5084	204.2	WB	16.00
DRB1_1101	102	ATVVITVVSYSQAQPS	VITVVSYS A	0.5072	206.9	WB	16.00
DRB1_1101	212	PEMWFVRQAHQICPV	MWFVRQAHQ	0.5049	212.0	WB	16.00
DRB1_1101	211	EPWFVVRQAHQICPV	MWFVRQAHQ	0.5041	214.0	WB	16.00
DRB1_1101	105	VITVVSYSQAQPSARL	VITVVSYS A	0.5041	214.0	WB	16.00
DRB1_1101	283	SNFPAIVKFLSEQVL	IVKFLSEQV	0.4971	230.7	WB	16.00
DRB1_1101	524	YKEDKQNRLLRVRS	QNRLLRVRS	0.4964	232.5	WB	16.00
DRB1_1101	420	DNFVWAYQRSEALAD	NFVWAYQRS	0.4904	248.0	WB	16.00
DRB1_1101	494	VMIGMLSSVVGGLGLF	IGMLSSVVG	0.4902	248.6	WB	16.00
DRB1_1101	376	DHDLRTRFRFTVTEA	LRTFRFTVT	0.4883	253.8	WB	16.00
DRB1_1101	377	HDLRTRFRFTVTEAE	RTRFRFTVTE	0.4860	260.2	WB	16.00
DRB1_1101	255	RVPMPPIIAVSSLLRS	IIAVSSLLR	0.4856	261.4	WB	16.00
DRB1_1101	38	LIDHTIAIAKLNERG	HTIAIAKLN	0.4854	261.8	WB	16.00
DRB1_1101	79	KQGKSQLLNSLLNLP	SQLLNSLLN	0.4847	263.8	WB	16.00
DRB1_1101	511	LSVGAGLILGRMAYK	GLILGRMAY	0.4829	269.0	WB	16.00
DRB1_1101	49	NERGDLVQRLTRARQ	VQRLTRARQ	0.4818	272.3	WB	16.00
DRB1_1101	213	EMWFVVRQAHQICPVG	MWFVRQAHQ	0.4817	272.4	WB	16.00
DRB1_1101	421	NFVWAYQRSEALADD	NFVWAYQRS	0.4773	286.0	WB	16.00
DRB1_1101	600	TERDNRIRELQRQLG	IRELQRQLG	0.4760	289.9	WB	16.00
DRB1_1101	419	GDNFVWAYQRSEALA	NFVWAYQRS	0.4749	293.2	WB	16.00
DRB1_1101	39	IDHTIAIAKLNERGD	HTIAIAKLN	0.4705	307.6	WB	32.00
DRB1_1101	545	RFVDDISFVVSQQR	ISFVVSQVS	0.4701	309.1	WB	32.00
DRB1_1101	41	DHTIAIAKLNERGDLV	IAIAKLNER	0.4689	313.1	WB	32.00
DRB1_1101	40	HTIAIAKLNERGDL	HTIAIAKLN	0.4664	321.5	WB	32.00
DRB1_1101	516	GLILGRMAYKEDKQN	LILGRMAYK	0.4633	332.7	WB	32.00
DRB1_1101	210	TEPEMWFVRQAHQIC	MWFVRQAHQ	0.4620	337.5	WB	32.00
DRB1_1101	291	FLSEQVLSRATERVR	SEQVLSRAT	0.4614	339.5	WB	32.00
DRB1_1101	378	DLRTRFRFTVTEAER	RTRFRFTVTE	0.4572	355.4	WB	32.00
DRB1_1101	469	GRMESKPLRRGHKMI	RMESKPLRR	0.4546	365.6	WB	32.00
DRB1_1101	67	DPQVRVVIAGLLKQGV	VVIAGLLKQ	0.4519	376.1	WB	32.00
DRB1_1101	318	QLAVSLGSELSVVND	VSLGSELSV	0.4515	378.0	WB	32.00
DRB1_1101	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.4512	379.2	WB	32.00
DRB1_1101	317	EQLAVSLGSELSVVN	VSLGSELSV	0.4487	389.3	WB	32.00
DRB1_1101	495	MIGMLSSVVGGLGFN	IGMLSSVVG	0.4460	401.2	WB	32.00
DRB1_1101	101	EATVVITVVSYSQAQP	VITVVSYS A	0.4458	401.9	WB	32.00
DRB1_1101	37	ELIDHTIAIAKLNER	HTIAIAKLN	0.4430	414.5	WB	32.00
DRB1_1101	282	SNFPAIVKFLSEQVL	FPAIVKFLS	0.4429	414.9	WB	32.00
DRB1_1101	487	RGSYGGVVMIGMLSS	VVMIGMLSS	0.4318	467.6	WB	32.00
DRB1_1101	375	VDHDLRTRFRFTVTE	HDLRTRFRFT	0.4313	470.1	WB	32.00
DRB1_1101	214	MWFVRQAHQICPVGA	MWFVRQAHQ	0.4303	475.6	WB	32.00
DRB1_1101	292	LSEQVLSRATERVRA	SEQVLSRAT	0.4288	483.3	WB	32.00
DRB1_1101	609	LQRQLGILSQVNDNL	LQRQLGILS	0.4281	486.8	WB	32.00
DRB1_1101	56	QRLTRARQRITDPQV	LTRARQRIT	0.4281	487.0	WB	32.00
DRB1_1101	9	RDLRRKRARKWGDTV	LRRKRARKW	0.4222	519.1		32.00
DRB1_1101	418	VGDNFVWAYQRSEAL	NFVWAYQRS	0.4221	519.3		32.00
DRB1_1101	319	LAVSLGSELSVVNDP	VSLGSELSV	0.4191	536.8		32.00
DRB1_1101	422	FVWAYQRSEALADDV	VWAYQRSEA	0.4181	542.3		32.00
DRB1_1101	496	IGMLSSVVGGLGFNFP	IGMLSSVVG	0.4176	545.3		32.00
DRB1_1101	264	SLLRSHAVTLNDKE	LLRSHAVTL	0.4171	548.4		32.00
DRB1_1101	468	LGRMESKPLRRGHKMI	RMESKPLRR	0.4154	558.7		32.00
DRB1_1101	608	ELQRQLGILSQVNDN	LQRQLGILS	0.4103	590.0		32.00
DRB1_1101	379	LRTFRFTVTEAERQ	RTRFRFTVTE	0.4094	596.1		32.00
DRB1_1101	607	RELQRQLGILSQVND	LQRQLGILS	0.4089	599.1		32.00
DRB1_1101	74	IAGLLKQGKSQLLNS	IAGLLKQGK	0.4068	612.6		32.00
DRB1_1101	78	LKQGKSQLLNSLLNL	SQLLNSLLN	0.4060	618.6		32.00
DRB1_1101	316	TEQLAVSLGSELSV	VSLGSELSV	0.4042	630.2		32.00

DRB1_1101	374	DVDHDLRTRFRFTVTE	HDLRTRFRFT	0.4035	635.2	32.00
DRB1_1101	467	ALGRMESKPLRRGHK	RMESKPLRR	0.4028	639.8	32.00
DRB1_1101	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.3999	660.7	32.00
DRB1_1101	551	SFVVSKQSRDRCLKMI	SFVVSKQSR	0.3995	663.0	32.00
DRB1_1101	293	SEQVLSRATERVRAG	SEQVLSRAT	0.3959	689.8	32.00
DRB1_1101	247	NAAHLQARVPMPII	HLQARVPM	0.3957	691.0	32.00
DRB1_1101	237	YPRWREIVNANAHL	WREIVNANA	0.3956	692.2	32.00
DRB1_1101	33	GVIVELIDHTIAIAK	VELIDHTIA	0.3944	700.6	32.00
DRB1_1101	87	NSLLNLPAARVGDDE	LLNLPAARV	0.3943	702.1	32.00
DRB1_1101	66	TDPQVRVVIAGLLKQ	VVIAGLLKQ	0.3940	704.3	32.00
DRB1_1101	248	AAHLQARVPMPIIA	HLQARVPM	0.3933	709.6	32.00
DRB1_1101	523	AYKEDKQNRLLRVRS	QNRLLRVRS	0.3919	720.2	32.00
DRB1_1101	236	LYPRWREIVNANAHAH	YPRWREIVN	0.3903	733.1	32.00
DRB1_1101	35	IVELIDHTIAIAKLN	VELIDHTIA	0.3866	763.1	32.00
DRB1_1101	610	QRQLGILSQVNDNLA	LGILSQVND	0.3865	763.8	32.00
DRB1_1101	36	VELIDHTIAIAKLNE	HTIAIAKLN	0.3853	773.9	32.00
DRB1_1101	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.3833	790.7	32.00
DRB1_1101	544	RRFVDDISFVVSQSQ	ISFVVSQSQ	0.3829	793.9	32.00
DRB1_1101	100	DEATVVITVVSYSQAQ	VITVVSYSQA	0.3815	805.6	32.00
DRB1_1101	1	VPAGLCAYRDLRRKR	LCAYRDLRR	0.3773	843.0	32.00
DRB1_1101	43	IAIAKLNERGDLVQR	IAIAKLNER	0.3772	844.0	32.00
DRB1_1101	34	VIVELIDHTIAIAKL	VELIDHTIA	0.3766	849.6	32.00
DRB1_1101	510	PLSVGAGLILGRMAY	GLILGRMAY	0.3730	883.8	32.00
DRB1_1101	235	LYPRWREIVNANA	YPRWREIVN	0.3712	901.4	32.00
DRB1_1101	565	IQRLLRDHYREIAEE	IQRLLRDHY	0.3705	907.4	32.00
DRB1_1101	517	LILGRMAYKEDKQNR	LILGRMAYK	0.3678	934.6	32.00
DRB1_1101	209	FTEPEMWFVRQAHQI	MWFVRQAHQ	0.3672	940.9	32.00
DRB1_1101	10	DLRRKRARKWGDVT	LRRKRARKW	0.3642	971.8	32.00
DRB1_1101	254	ARVPMPIIAVSSLLR	IIAVSSLLR	0.3596	1021.6	32.00
DRB1_1101	249	HLQARVPMPIIAV	HLQARVPM	0.3587	1032.0	32.00
DRB1_1101	246	ANAHLQARVPMPII	HLQARVPM	0.3583	1035.5	32.00
DRB1_1101	238	PRWREIVNANAHLQ	WREIVNANA	0.3581	1037.9	32.00
DRB1_1101	320	AVSLGSELSVNDPN	VSLGSELSV	0.3578	1041.0	32.00
DRB1_1101	577	AEEITRSLTESLQAT	AEEITRSLT	0.3552	1071.2	32.00
DRB1_1101	305	RAGVLGEIRSATEQL	VLGEIRSAT	0.3533	1093.0	50.00
DRB1_1101	533	LWRVSEAKANVRRFV	LWRVSEAKA	0.3531	1096.3	50.00
DRB1_1101	239	RREIVNANAHLQR	WREIVNANA	0.3525	1103.1	50.00
DRB1_1101	106	ITVVSYSQAQPSARLV	ITVVSYSQAQ	0.3524	1103.9	50.00
DRB1_1101	466	KALGRMESKPLRRGH	RMESKPLRR	0.3517	1112.2	50.00
DRB1_1101	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.3516	1114.2	50.00
DRB1_1101	505	LGLFNPLSVGAGLIL	FNPLSVGAG	0.3501	1131.4	50.00
DRB1_1101	250	HLQARVPMPIIAV	HLQARVPM	0.3489	1147.1	50.00
DRB1_1101	57	LRTRARQRITDPQVR	LTRARQRIT	0.3488	1147.5	50.00
DRB1_1101	32	VGIVIVELIDHTIAIA	VELIDHTIA	0.3457	1187.6	50.00
DRB1_1101	417	AVGDNFVWAYQRSEA	NFVWAYQRS	0.3440	1209.9	50.00
DRB1_1101	576	IAEEITRSLTESLQA	AEEITRSLT	0.3439	1210.3	50.00
DRB1_1101	245	NANAHLQARVPMPI	AAHLQARV	0.3419	1237.3	50.00
DRB1_1101	423	VWAYQRSEALADDVA	VWAYQRSEA	0.3415	1242.0	50.00
DRB1_1101	504	GLGLFNPLSVGAGLI	FNPLSVGAG	0.3415	1242.3	50.00
DRB1_1101	611	RQLGILSQVNDNLAG	LGILSQVND	0.3404	1257.3	50.00
DRB1_1101	503	VGLGLFNPLSVGAGL	FNPLSVGAG	0.3394	1271.4	50.00
DRB1_1101	579	EITRSLTESLQATIA	RSLTESLQA	0.3383	1285.8	50.00
DRB1_1101	234	TDLYPRWREIVNANA	YPRWREIVN	0.3377	1294.1	50.00
DRB1_1101	315	ATEQLAVSLGSELSV	VSLGSELSV	0.3373	1300.6	50.00
DRB1_1101	11	LRRKRARKWGDVTQ	LRRKRARKW	0.3366	1309.8	50.00
DRB1_1101	77	LLKQKQSLLNSLLN	LRLNLSLLN	0.3336	1353.3	50.00
DRB1_1101	137	DDISTDVRRAPHAGG	STDVRRAPH	0.3311	1389.9	50.00
DRB1_1101	380	RTRFRFTVTEAERQI	RTRFRFTVTE	0.3306	1398.6	50.00
DRB1_1101	578	EETRSLTESLQATI	ITRSLTESL	0.3299	1408.7	50.00
DRB1_1101	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.3290	1423.1	50.00
DRB1_1101	501	SVVGLGLFNPLSVGA	VVGLGLFNP	0.3276	1444.3	50.00
DRB1_1101	502	VVGLGLFNPLSVGAG	GLGLFNPLS	0.3264	1463.2	50.00
DRB1_1101	580	ITRSLTESLQATIA	RSLTESLQA	0.3250	1486.1	50.00
DRB1_1101	138	DDISTDVRRAPHAGGR	STDVRRAPH	0.3245	1494.1	50.00
DRB1_1101	304	VRAGVLGEIRSATEQ	AGVLGEIRS	0.3239	1502.9	50.00
DRB1_1101	373	ADVHDHLRTRFRFTVT	HDLRTRFRFT	0.3200	1567.5	50.00
DRB1_1101	48	LNERGDLVQRLTRAR	RGDLVQRLT	0.3193	1579.0	50.00
DRB1_1101	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.3191	1583.2	50.00
DRB1_1101	506	GLFNPLSVGAGLILG	FNPLSVGAG	0.3178	1605.5	50.00
DRB1_1101	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.3148	1658.2	50.00

DRB1_1101	139	ISTDVRRAPHAGGRE	STDVRRAPH	0.3138	1676.8	50.00
DRB1_1101	498	MLSSVVGGLGFNPLS	VVGLGLFNP	0.3131	1688.8	50.00
DRB1_1101	500	SSVVGLGLFNPLSVG	VVGLGLFNP	0.3130	1690.9	50.00
DRB1_1101	307	EVGLGEIRSATEQLAV	LGEIRSATE	0.3114	1720.0	50.00
DRB1_1101	294	QVLSRATERVRAGV	QVLSRATER	0.3104	1738.6	50.00
DRB1_1101	136	VDDISTDVRRAPHAG	STDVRRAPH	0.3081	1782.9	50.00
DRB1_1101	554	VSKQSRDRLKMIQR	RDRLKMIQR	0.3073	1798.0	50.00
DRB1_1101	303	RVRAGVLGEIRSATE	AGVLGEIRS	0.3069	1806.7	50.00
DRB1_1101	499	LSSVVGLGLFNPLSV	SVVGLGLFN	0.3059	1825.2	50.00
DRB1_1101	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.3047	1849.4	50.00
DRB1_1101	281	EESNFPAIVKFLSEQ	FPAIVKFLS	0.3043	1857.2	50.00
DRB1_1101	497	GMLSSVVGLGFNPL	LSSVVGLGL	0.3007	1932.7	50.00
DRB1_1101	575	EIAEEITRSLTESLQ	AEEITRSLT	0.3000	1947.0	50.00
DRB1_1101	251	LQRARVPMPIIAVSS	RARVPMPII	0.2999	1949.0	50.00
DRB1_1101	65	ITDPQVRVVIAGLLK	RVVIAGLLK	0.2975	1999.2	50.00
DRB1_1101	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.2968	2014.4	50.00
DRB1_1101	31	RVGVIVELIDHTIAI	IVELIDHTI	0.2955	2043.0	50.00
DRB1_1101	88	LLNLPAARVGDDEA	LLNLPAARV	0.2955	2044.6	50.00
DRB1_1101	162	PSLLRGGLAFIDTP	SPLL RGGLA	0.2945	2065.0	50.00
DRB1_1101	599	ETERDNRIRELQRQL	DNRIRELQR	0.2939	2079.1	50.00
DRB1_1101	581	TRSLTESLQATIAAA	LTESLQATI	0.2932	2094.2	50.00
DRB1_1101	75	AGLLKQGKSQLLNSL	LKQGKSQLL	0.2923	2114.9	50.00
DRB1_1101	161	APSPLLRGGLAFIDT	SPLL RGGLA	0.2898	2174.7	50.00
DRB1_1101	574	REIAEEITRSLTESL	AEEITRSLT	0.2897	2175.1	50.00
DRB1_1101	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.2897	2176.7	50.00
DRB1_1101	244	VNANA AHLQARARVPM	A AHLQARARV	0.2896	2179.5	50.00
DRB1_1101	163	SPLL RGGLAFIDTPG	SPLL RGGLA	0.2885	2204.0	50.00
DRB1_1101	582	RSLTESLQATIAAAQ	LTESLQATI	0.2885	2205.3	50.00
DRB1_1101	240	WREIVNANA AHLQRA	WREIVNANA	0.2881	2214.2	50.00
DRB1_1101	30	R RVGVIVELIDHTIA	RVGVIVELID	0.2878	2221.9	50.00
DRB1_1101	507	LFNPLSVGAGLILGR	FNPLSVGAG	0.2860	2264.8	50.00
DRB1_1101	140	STDVRRAPHAGGREV	STDVRRAPH	0.2851	2287.1	50.00
DRB1_1101	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.2846	2298.9	50.00
DRB1_1101	220	AHQICPVGAVVATKT	ICPVGAVVA	0.2833	2331.4	50.00
DRB1_1101	455	PHVMGTFDFGRLLKALG	GTDFGRLLKA	0.2831	2337.7	50.00
DRB1_1101	253	RARVPMPIIAVSSLL	RVPMPPIIAV	0.2811	2387.5	50.00
DRB1_1101	58	LTRARQRITDPQVRV	LTRARQRIT	0.2795	2429.7	50.00
DRB1_1101	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.2785	2457.8	50.00
DRB1_1101	187	SATLGLLPEADAVLV	LGLLPEADA	0.2780	2470.6	50.00
DRB1_1101	372	TADVHDHLRTRFRTV	HDLRTRFRT	0.2772	2489.9	50.00
DRB1_1101	208	EFTEPEMWFVRQAHQ	MWFVRQAHQ	0.2730	2606.6	50.00
DRB1_1101	99	DDEATVVITVVSYSYA	ATVVITVVS	0.2711	2662.2	50.00
DRB1_1101	185	HLSATLGLLPEADAV	LGLLPEADA	0.2710	2664.7	50.00
DRB1_1101	175	TPGVGGLGQPHLSAT	GVGGLGQPH	0.2708	2670.0	50.00
DRB1_1101	252	QRARVPMPIIAVSSL	RVPMPPIIAV	0.2706	2675.1	50.00
DRB1_1101	416	TAVGDNFVWAYQRSE	DNFVWAYQR	0.2701	2690.9	50.00
DRB1_1101	164	PLL RGGLAFIDTPGV	LLRGGLAFI	0.2689	2724.7	50.00
DRB1_1101	186	LSATLGLLPEADAVL	LGLLPEADA	0.2688	2728.0	50.00
DRB1_1101	424	WAYQRSEALADDVAR	AYQRSEALA	0.2661	2809.3	50.00
DRB1_1101	219	QAHQICPVGAVVATK	HQICPVGAV	0.2660	2813.4	50.00
DRB1_1101	135	PVDDISTDVRRAPHA	STDVRRAPH	0.2645	2858.8	50.00
DRB1_1101	280	NEESNFPAIVKFLSE	FPAIVKFLS	0.2624	2922.6	50.00
DRB1_1101	116	SARLVLAAGPDGTTA	ARLVLAAGP	0.2623	2927.4	50.00
DRB1_1101	295	QVLSRATERVRAGVL	LSRATERVR	0.2618	2941.4	50.00
DRB1_1101	233	KTDLYPRWREIVNAN	YPRWREIVN	0.2618	2942.9	50.00
DRB1_1101	302	ERVRRAGVLGEIRSAT	AGVLGEIRS	0.2616	2950.8	50.00
DRB1_1101	188	ATLGLLPEADAVLVV	LGLLPEADA	0.2614	2956.0	50.00
DRB1_1101	107	TVVSYSAQPSARLVL	VSYSAQPSA	0.2591	3031.2	50.00
DRB1_1101	160	GAPSPLL RGGLAFID	SPLL RGGLA	0.2580	3067.4	50.00
DRB1_1101	115	PSARLVLAAGPDGTT	ARLVLAAGP	0.2578	3072.8	50.00
DRB1_1101	308	VLGEIRSATEQLAVS	EIRSATEQL	0.2572	3093.8	50.00
DRB1_1101	176	PGVGLGQPHLSATL	VGGLGQPHL	0.2570	3098.3	50.00
DRB1_1101	76	GLLKQGKSQLLNSL	LKQGKSQLL	0.2562	3126.0	50.00
DRB1_1101	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.2557	3144.0	50.00
DRB1_1101	218	RQAHQICPVGAVVAT	HQICPVGAV	0.2548	3176.0	50.00
DRB1_1101	553	VVSKQSRDRLKMIQR	RDRLKMIQR	0.2529	3241.5	50.00
DRB1_1101	357	TALWQQVLDGDFNDL	TALWQQVLDG	0.2523	3262.4	50.00
DRB1_1101	612	QLGILSQVNDNLAGL	LGILSQVND	0.2522	3265.7	50.00
DRB1_1101	484	IGMRGSYGGVVMIGM	IGMRGSYGG	0.2516	3285.5	50.00
DRB1_1101	356	QTALWQQVLDGDFND	TALWQQVLDG	0.2502	3335.7	50.00

DRB1_1101	174	DTPGVGGLGQPHLSA	GVGGLGQPH	0.2501	3339.8	50.00
DRB1_1101	108	VVSYSAQPSARLVLA	VSYSQAQPSA	0.2472	3445.5	50.00
DRB1_1101	114	QPSARLVLAAGPDGT	SARLVLAAG	0.2461	3488.6	50.00
DRB1_1101	29	PRRGVIVELIDHTI	VGIVIVELID	0.2459	3496.3	50.00
DRB1_1101	486	MRGSYGGVVMIGMLS	YGGVVMIGM	0.2453	3519.5	50.00
DRB1_1101	543	VRRFVDDISFVVSQKQ	FVDDISFVV	0.2448	3537.3	50.00
DRB1_1101	221	HQICPVGAVVATKTD	ICPVGAVVA	0.2443	3555.6	50.00
DRB1_1101	0	MVPAGLCAYRDLRRK	LCAYRDLRR	0.2442	3560.2	50.00
DRB1_1101	47	KLNERGDLVQRLTRA	RGDLVQRLT	0.2434	3591.9	50.00
DRB1_1101	355	FQQTALWQQVLGDGFN	TALWQQVLG	0.2433	3595.3	50.00
DRB1_1101	216	VRRQAHQICPVGAVV	HQICPVGAV	0.2433	3595.6	50.00
DRB1_1101	538	EAKANVRRFVDDISF	AKANVRRFV	0.2428	3612.9	50.00
DRB1_1101	583	SLTESLQATIAAAQV	LTESLQATI	0.2409	3691.6	50.00
DRB1_1101	536	RSEAKANVRRFVDDI	AKANVRRFV	0.2404	3708.3	50.00
DRB1_1101	184	PHLSATLGLLPEADA	LSATLGLLP	0.2387	3778.4	50.00
DRB1_1101	571	DHYREIAEEITRSLT	YREIAEEIT	0.2383	3793.5	50.00
DRB1_1101	508	FNPLSVGAGLILGRM	NPLSVGAG	0.2381	3805.0	50.00
DRB1_1101	354	VQQTALWQQVLGDGF	TALWQQVLG	0.2377	3819.6	50.00
DRB1_1101	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.2375	3826.3	50.00
DRB1_1101	573	YREIAEEITRSLTES	AEEITRSLT	0.2357	3904.3	50.00
DRB1_1101	309	LGEIRSATEQLAVSL	IRSATEQLA	0.2357	3904.5	50.00
DRB1_1101	44	AIAKLNERGDLVQRL	AIAKLNERG	0.2353	3922.2	50.00
DRB1_1101	542	NVRRFVDDISFVVS	RRFVDDISF	0.2351	3929.2	50.00
DRB1_1101	222	QICPVGAVVATKTDL	ICPVGAVVA	0.2340	3977.6	50.00
DRB1_1101	537	SEAKANVRRFVDDIS	AKANVRRFV	0.2339	3978.4	50.00
DRB1_1101	152	REVLRVVEVGAPSPLL	LRVEVGAPS	0.2337	3989.7	50.00
DRB1_1101	89	LLNLPAARVGDDEAT	LLNLPAARV	0.2329	4024.8	50.00
DRB1_1101	584	LTESLQATIAAAQVA	ESLQATIAA	0.2327	4029.9	50.00
DRB1_1101	279	LNEESNFPAIVKFLS	FPAIVKFLS	0.2322	4053.1	50.00
DRB1_1101	572	HYREIAEEITRSLTE	HYREIAEEI	0.2319	4064.9	50.00
DRB1_1101	570	RDHYREIAEEITRSL	YREIAEEIT	0.2295	4172.9	50.00
DRB1_1101	153	EVLRVVEVGAPSPLLR	LRVEVGAPS	0.2291	4193.3	50.00
DRB1_1101	217	VRQAHQICPVGAVVA	HQICPVGAV	0.2290	4196.5	50.00
DRB1_1101	485	GMRGSYGGVVMIGML	YGGVVMIGM	0.2289	4200.3	50.00
DRB1_1101	301	TERVRAGVLGEIRSA	AGVLGEIRS	0.2283	4229.7	50.00
DRB1_1101	223	ICPVGAVVATKTDLY	VGAVVATKT	0.2281	4239.4	50.00
DRB1_1101	151	GREVLRVVEVGAPSP	VLRVEVGAP	0.2275	4265.6	50.00
DRB1_1101	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.2272	4279.8	50.00
DRB1_1101	566	QRLLRDHYREIAEEI	LRDHYREIA	0.2267	4301.7	50.00
DRB1_1101	321	VSLGSELSVNDPNL	VSLGSELSV	0.2258	4345.2	50.00
DRB1_1101	567	RLLRDHYREIAEEIT	RDHYREIAE	0.2249	4387.1	50.00
DRB1_1101	296	VLSRATERVRAGVLG	LSRATERVR	0.2249	4387.4	50.00
DRB1_1101	154	LRVEVGAPSPLLRG	LRVEVGAPS	0.2245	4406.6	50.00
DRB1_1101	568	LLRDHYREIAEEITR	HYREIAEEI	0.2242	4420.2	50.00
DRB1_1101	569	LRDHYREIAEEITRS	HYREIAEEI	0.2230	4480.4	50.00
DRB1_1101	539	AKANVRRFVDDISFV	AKANVRRFV	0.2227	4490.3	50.00
DRB1_1101	177	GVGGLGQPHLSATLG	VGGLGQPHL	0.2214	4556.7	50.00
DRB1_1101	314	SATEQLAVSLGSELS	EQLAVSLGS	0.2212	4567.1	50.00
DRB1_1101	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.2206	4596.3	50.00
DRB1_1101	12	RRKRARKWGDVTQ	RRKRARKWG	0.2197	4639.2	50.00
DRB1_1101	541	ANVRRFVDDISFVVS	RRFVDDISF	0.2197	4639.3	50.00
DRB1_1101	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.2178	4735.7	50.00
DRB1_1101	113	AQPSARLVLAAGPDG	SARLVLAAG	0.2170	4779.6	50.00
DRB1_1101	509	NPLSVGAGLILGRMA	AGLILGRMA	0.2150	4881.5	50.00
DRB1_1101	381	TRFRTVTEDAERQID	RFRTVTEDA	0.2146	4903.6	50.00
DRB1_1101	159	VGAPSPLLRGGLAFI	SPLLRGGGLA	0.2137	4949.6	50.00
DRB1_1101	439	SFADAGLDSVLSAEL	DAGLDSVLS	0.2134	4969.1	50.00
DRB1_1101	183	QPHLSATLGLLPEAD	LSATLGLLP	0.2128	4999.0	50.00
DRB1_1101	155	LRVEVGAPSPLLRGG	LRVEVGAPS	0.2128	4999.9	50.00
DRB1_1101	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.2126	5013.8	50.00
DRB1_1101	225	PVGAVVATKTDLYPR	VGAVVATKT	0.2120	5043.9	50.00
DRB1_1101	226	VGAVVATKTDLYPRW	VGAVVATKT	0.2103	5137.2	50.00
DRB1_1101	535	RRSEAKANVRRFVDD	AKANVRRFV	0.2101	5148.8	50.00
DRB1_1101	117	ARLVLAAGPDGTAA	ARLVLAAGP	0.2096	5174.8	50.00
DRB1_1101	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.2080	5267.4	50.00
DRB1_1101	297	LSRATERVRAGVLGE	LSRATERVR	0.2075	5295.9	50.00
DRB1_1101	28	DPRRVGVIVELIDHT	VGIVIVELID	0.2073	5306.4	50.00
DRB1_1101	371	LTADVHDHLRTRFRT	VDHLRTRF	0.2072	5310.6	50.00
DRB1_1101	232	TKTDLYPRWREIVNA	YPRWREIVN	0.2069	5329.9	50.00
DRB1_1101	440	FADAGLDSVLSAELS	DAGLDSVLS	0.2068	5337.0	50.00

DRB1_1101	337	DRLASDLERRKREAQ	ASDLERRKR	0.2054	5417.2	50.00
DRB1_1101	150	GGREVLRVVEVGAPSP	REVLRVVEVG	0.2047	5456.2	50.00
DRB1_1101	109	VSYSAQPSARLVLA	VSYSAQPSA	0.2037	5519.2	50.00
DRB1_1101	310	GEIRSATEQLAVSLG	IRSATEQLA	0.2036	5524.5	50.00
DRB1_1101	173	IDTPGVGGLGQPHLS	GVGGLGQPH	0.2029	5567.6	50.00
DRB1_1101	182	GQPHLSATLGLLPEA	LSATLGLLP	0.2027	5578.1	50.00
DRB1_1101	196	ADAVLVVSDTSQEFT	AVLVVSDTS	0.2020	5621.5	50.00
DRB1_1101	338	RLASDLERRKREAQQ	ASDLERRKR	0.2008	5694.3	50.00
DRB1_1101	454	SPHVMGTDFGRLKAL	GTDFGRLKA	0.2006	5707.1	50.00
DRB1_1101	141	TDVRRAPHAGGREVL	VRRAPHAGG	0.2005	5712.8	50.00
DRB1_1101	189	TLGGLPEADAVLVV	VLLPEADA	0.1983	5850.7	50.00
DRB1_1101	148	HAGGREVLRVVEVGAP	GREVLRVVEV	0.1979	5874.0	50.00
DRB1_1101	224	CPVGAVVATKTDLYP	VGAVVATKT	0.1970	5934.6	50.00
DRB1_1101	269	SHAVTLNDKELNEES	VTLNDKELN	0.1969	5939.5	50.00
DRB1_1101	585	TESLQATIAAAQVAE	ESLQATIAA	0.1962	5982.6	50.00
DRB1_1101	339	LASDLERRKREAQQA	DLERRKREA	0.1960	5996.5	50.00
DRB1_1101	197	EADVLVVSDTSQEFTE	AVLVVSDTS	0.1959	6001.4	50.00
DRB1_1101	195	DADAVLVVSDTSQEF	AVLVVSDTS	0.1939	6132.9	50.00
DRB1_1101	149	AGGREVLRVVEVGAPS	REVLRVVEVG	0.1936	6154.4	50.00
DRB1_1101	46	AKLNERGDLVQRLTR	GDLVQRLTR	0.1936	6158.0	50.00
DRB1_1101	443	AGLDSVLSAELSPHV	DSVLSAELS	0.1934	6167.4	50.00
DRB1_1101	586	ESLQATIAAAQVAET	ESLQATIAA	0.1916	6289.5	50.00
DRB1_1101	243	IVNANAHLQRRARVP	AAHLQRRARV	0.1916	6289.5	50.00
DRB1_1101	438	RNFADAGLDSVLSAE	DAGLDSVLS	0.1904	6369.8	50.00
DRB1_1101	268	RSHAVTLNDKELNEE	VTLNDKELN	0.1898	6414.4	50.00
DRB1_1101	311	EIRSATEQLAVSLGS	IRSATEQLA	0.1892	6455.1	50.00
DRB1_1101	340	ASDLERRKREAQQAV	LERRKREAQ	0.1885	6505.1	50.00
DRB1_1101	270	HAVTLNDKELNEESN	VTLNDKELN	0.1884	6508.9	50.00
DRB1_1101	300	ATERVRAGVLGEIRS	RVRAGVLGE	0.1878	6557.4	50.00
DRB1_1101	441	ADAGLDSVLSAELSP	DAGLDSVLS	0.1876	6569.7	50.00
DRB1_1101	242	EIVNANAHLQRRARV	AAHLQRRARV	0.1872	6599.6	50.00
DRB1_1101	358	ALWQQVLGDGFNDLT	WQQVLGDGF	0.1871	6603.5	50.00
DRB1_1101	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.1864	6653.8	50.00
DRB1_1101	27	DDPRRVGVIVELIDH	VGIVIVELID	0.1847	6778.7	50.00
DRB1_1101	353	AVQQTALWQQVLGDG	TALWQQVLG	0.1837	6848.1	50.00
DRB1_1101	540	KANVRRFVDDISFVV	RFVDDISF	0.1834	6874.9	50.00
DRB1_1101	442	DAGLDSVLSAELSPH	DSVLSAELS	0.1831	6894.6	50.00
DRB1_1101	267	LRSHAVTLNDKELNE	VTLNDKELN	0.1829	6910.1	50.00
DRB1_1101	147	PHAGGREVLRVVEVGA	GREVLRVVEV	0.1812	7038.3	50.00
DRB1_1101	522	MAYKEDKQNRLLRVR	DKQNRLLRV	0.1812	7038.4	50.00
DRB1_1101	98	GDDEATVVITVVSYS	ATVVITVVS	0.1811	7047.4	50.00
DRB1_1101	142	DVRRAPHAGGREVLR	VRRAPHAGG	0.1807	7080.9	50.00
DRB1_1101	298	SRATERVRAGVLGEI	TERVRAGVL	0.1806	7084.3	50.00
DRB1_1101	312	IRSATEQLAVSLGSE	IRSATEQLA	0.1783	7260.9	50.00
DRB1_1101	444	GLDSVLSAELSPHVM	DSVLSAELS	0.1771	7356.2	50.00
DRB1_1101	180	GLGQPHLSATLGLLP	QPHLSATLG	0.1770	7366.6	50.00
DRB1_1101	336	RDRLASDLERRKREA	ASDLERRKR	0.1770	7369.5	50.00
DRB1_1101	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.1764	7411.4	50.00
DRB1_1101	299	RATERVRAGVLGEIR	TERVRAGVL	0.1762	7434.2	50.00
DRB1_1101	518	ILGRMAYKEDKQNRL	VILGRMAYKE	0.1760	7443.9	50.00
DRB1_1101	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.1757	7473.1	50.00
DRB1_1101	112	SAQPSARLVLAAGPD	SARLVLAAG	0.1751	7520.9	50.00
DRB1_1101	620	NDNLAGLEPTLTTPRA	LAGLEPTLT	0.1750	7524.3	50.00
DRB1_1101	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.1744	7575.9	50.00
DRB1_1101	181	LGQPHLSATLGLLPE	LSATLGLLP	0.1742	7590.5	50.00
DRB1_1101	134	IPVDISTDVRRAPH	STDVRRAPH	0.1733	7669.0	50.00
DRB1_1101	445	LDSVLSAELSPHVMG	DSVLSAELS	0.1718	7795.7	50.00
DRB1_1101	231	ATKTDLYPRWREIVN	YPRWREIVN	0.1710	7857.1	50.00
DRB1_1101	146	APHAGGREVLRVVEVG	HAGGREVLR	0.1710	7858.8	50.00
DRB1_1101	190	LGLLPEADAVLVVSD	LGLLPEADA	0.1703	7921.1	50.00
DRB1_1101	621	DNLAGLEPTLTTPRAS	NLAGLEPTL	0.1682	8100.5	50.00
DRB1_1101	313	RSATEQLAVSLGSEL	EQLAVSLGS	0.1679	8128.7	50.00
DRB1_1101	613	LGILSQVNDNLAGLE	LGILSQVND	0.1679	8131.7	50.00
DRB1_1101	625	GLEPTLTTPRASLGRA	PTLTTPRASL	0.1669	8215.6	50.00
DRB1_1101	437	ARSFADAGLDSVLSA	DAGLDSVLS	0.1651	8374.6	50.00
DRB1_1101	271	AVTLNDKELNEESNF	VTLNDKELN	0.1648	8405.0	50.00
DRB1_1101	45	IAKLNERGDLVQRLT	KLNERGDLV	0.1645	8432.1	50.00
DRB1_1101	145	RAPHAGGREVLRVVEV	HAGGREVLR	0.1631	8564.6	50.00
DRB1_1101	333	PNLRDRLASDLERRK	PNLRDRLAS	0.1625	8615.3	50.00
DRB1_1101	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.1617	8693.8	50.00

DRB1_1101	332	DPNLRDRLASDLERR	PNLRDRLAS	0.1612	8740.8	50.00
DRB1_1101	111	YSAQPSARLVLAAGP	YSAQPSARL	0.1604	8815.6	50.00
DRB1_1101	241	REIVNANAHAHLQRAR	REIVNANAA	0.1597	8879.8	50.00
DRB1_1101	352	QAVQQTALWQQVLGD	TALWQQVLG	0.1595	8906.7	50.00
DRB1_1101	341	SDLERRKREAQQAVQ	LERRKREAQ	0.1581	9033.8	50.00
DRB1_1101	587	SLQATIAAAQVAETE	ATIAAAQVA	0.1579	9059.5	50.00
DRB1_1101	178	VGGLGQPHLSATLGL	VGGLGQPHL	0.1574	9101.8	50.00
DRB1_1101	619	VNDNLAGLEPTLTPR	NLAGLEPTL	0.1559	9253.2	50.00
DRB1_1101	158	EVGAPSPLLRGGLAF	SPLLRGGLA	0.1553	9315.2	50.00
DRB1_1101	598	AETERDNRIRELQOQ	RDNRIRELQ	0.1547	9376.0	50.00
DRB1_1101	331	NDPNLRDRLASDLER	PNLRDRLAS	0.1538	9473.3	50.00
DRB1_1101	446	DSVLSAELSPHVMGT	SVLSAELSP	0.1528	9571.7	50.00
DRB1_1101	622	NLAGLEPTLTTPRASL	NLAGLEPTL	0.1524	9612.7	50.00
DRB1_1101	179	GGLGQPHLSATLGLL	GLGQPHLSA	0.1522	9632.7	50.00
DRB1_1101	342	DLERRKREAQQAVQQ	LERRKREAQ	0.1521	9639.8	50.00
DRB1_1101	327	LSVNDPNLRDRLAS	VVNDPNLRD	0.1518	9677.5	50.00
DRB1_1101	453	LSPHVMGTDVDFGRKA	HVMGTDVDFGR	0.1517	9689.3	50.00
DRB1_1101	334	NLRDRLASDLERRKR	DRLASDLER	0.1506	9804.9	50.00
DRB1_1101	425	AYQRSEALADDVARS	AYQRSEALA	0.1503	9833.9	50.00
DRB1_1101	588	LQATIAAAQVAETER	ATIAAAQVA	0.1489	9984.0	50.00
DRB1_1101	335	LRDRLASDLERRKRE	DRLASDLER	0.1476	10122.6	50.00
DRB1_1101	448	VLSAELSPHVMGTD	AELSPHVMG	0.1476	10130.1	50.00
DRB1_1101	329	VVNDPNLRDRLASDL	PNLRDRLAS	0.1475	10137.7	50.00
DRB1_1101	447	SVLSAELSPHVMGTD	AELSPHVMG	0.1458	10318.9	50.00
DRB1_1101	13	RKRARKWGDVTVTQPD	RKWGDVTVTQ	0.1453	10379.1	50.00
DRB1_1101	110	SYSAQPSARLVLAAG	YSAQPSARL	0.1443	10495.8	50.00
DRB1_1101	328	SVVNDPNLRDRLASD	VVNDPNLRD	0.1435	10579.3	50.00
DRB1_1101	207	QEFTEPEMWFVRQAH	EMWFVRQAH	0.1422	10731.4	50.00
DRB1_1101	330	VNDPNLRDRLASDLE	PNLRDRLAS	0.1420	10755.6	50.00
DRB1_1101	351	QAVQQTALWQQVLG	TALWQQVLG	0.1406	10922.5	50.00
DRB1_1101	26	QDDPRRVGVIVELID	VGIVIVELID	0.1402	10971.4	50.00
DRB1_1101	436	VARSFADAGLDSVLS	SFADAGLDS	0.1393	11072.6	50.00
DRB1_1101	157	VEVGAPSPLLRGGLA	SPLLRGGLA	0.1387	11147.8	50.00
DRB1_1101	521	RMAYKEDKQNRLLRV	AYKEDKQNR	0.1379	11242.7	50.00
DRB1_1101	624	AGLEPTLTTPRASLGR	PTLTTPRASL	0.1376	11282.0	50.00
DRB1_1101	272	VTLNDKELNEESNFP	VTLNDKELN	0.1367	11390.6	50.00
DRB1_1101	227	AVVATKTDLYPRWR	VVATKTDLY	0.1356	11528.1	50.00
DRB1_1101	194	PEADAVLVVSDTSQE	AVLVVSDTS	0.1342	11701.4	50.00
DRB1_1101	589	QATIAAAQVAETERD	IAAAQVAET	0.1333	11819.2	50.00
DRB1_1101	118	RLVLAAGPDGTAAV	LVLAAGPDG	0.1329	11872.8	50.00
DRB1_1101	278	ELNEESNFPAIVKFL	ESNFPAIVK	0.1316	12040.2	50.00
DRB1_1101	63	QRITDPQVRVVIAGL	RITDPQVRV	0.1310	12119.4	50.00
DRB1_1101	414	IATAVGDNFVWAYQR	DNFVWAYQR	0.1287	12417.2	50.00
DRB1_1101	144	RRAPVHAGGREVLRVE	HAGGREVLR	0.1286	12442.0	50.00
DRB1_1101	370	DLTADVHDHLRTRFR	VDHLRTRF	0.1283	12476.9	50.00
DRB1_1101	623	LAGLEPTLTTPRASLG	LAGLEPTLT	0.1274	12596.5	50.00
DRB1_1101	618	QVNDNLAGLEPTLTP	LAGLEPTLT	0.1270	12654.6	50.00
DRB1_1101	156	RVEVGAPSPLLRGGL	VEVGAPSP	0.1253	12881.8	50.00
DRB1_1101	449	LSAELSPHVMGTDVFG	AELSPHVMG	0.1253	12890.6	50.00
DRB1_1101	14	KRARKWGDVTVTQDD	RKWGDVTVTQ	0.1239	13084.4	50.00
DRB1_1101	97	VGDEATVVITVVS	ATVVITVVS	0.1231	13201.4	50.00
DRB1_1101	616	LSQVNDNLAGLEPTL	SQVNDNLAG	0.1221	13340.6	50.00
DRB1_1101	59	TRARQRITDPQVRVV	TRARQRITD	0.1218	13387.0	50.00
DRB1_1101	343	LERRKREAQQAVQQT	LERRKREAQ	0.1214	13449.8	50.00
DRB1_1101	617	SQVNDNLAGLEPTLT	SQVNDNLAG	0.1212	13470.8	50.00
DRB1_1101	228	AVVATKTDLYPRWRE	AVVATKTDL	0.1211	13483.9	50.00
DRB1_1101	326	ELSVVNDPNLRDRLA	VVNDPNLRD	0.1189	13817.0	50.00
DRB1_1101	614	GILSQVNDNLAGLEP	SQVNDNLAG	0.1187	13834.9	50.00
DRB1_1101	450	SAELSPHVMGTDVDFGR	AELSPHVMG	0.1184	13887.1	50.00
DRB1_1101	451	AELSPHVMGTDVDFGR	AELSPHVMG	0.1183	13901.7	50.00
DRB1_1101	615	ILSQVNDNLAGLEPT	SQVNDNLAG	0.1145	14478.9	50.00
DRB1_1101	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.1140	14559.0	50.00
DRB1_1101	277	KELNEESNFPAIVKF	LNEESNFPA	0.1125	14798.0	50.00
DRB1_1101	206	SQEFTEPEMWFVRQA	EFTEPEMWF	0.1124	14823.5	50.00
DRB1_1101	60	RARQRITDPQVRVVI	RITDPQVRV	0.1098	15243.3	50.00
DRB1_1101	25	QDDPRRVGVIVELI	RVGVIVELI	0.1093	15327.8	50.00
DRB1_1101	520	GRMAYKEDKQNRLLR	AYKEDKQNR	0.1087	15416.8	50.00
DRB1_1101	276	DKELNEESNFPAIVK	LNEESNFPA	0.1079	15559.1	50.00
DRB1_1101	322	SLGSELSVVNDPNLR	LGSELSVVN	0.1073	15652.8	50.00
DRB1_1101	15	RARKWGDVTVTQDDP	RKWGDVTVTQ	0.1072	15681.6	50.00

DRB1_1101	62	RQRITDPQVRVVIAG	RITDPQVRV	0.1069	15722.0	50.00
DRB1_1101	590	ATIAAAQVAETERDN	IAAAQVAET	0.1068	15752.4	50.00
DRB1_1101	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.1051	16044.8	50.00
DRB1_1101	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.1048	16080.6	50.00
DRB1_1101	61	AQRITDPQVRVVI A	RITDPQVRV	0.1048	16090.7	50.00
DRB1_1101	519	LGRMAYKEDKQNRLL	AYKEDKQNR	0.1028	16449.1	50.00
DRB1_1101	597	VAETERDNRIRELQR	DNRIRELQR	0.1023	16524.0	50.00
DRB1_1101	229	VVATKTDLYPRWREI	VVATKTDLY	0.1021	16560.7	50.00
DRB1_1101	230	VATKTDLYPRWREIV	VATKTDLYP	0.1020	16579.0	50.00
DRB1_1101	16	ARKWAGDVTVPDDPR	RKWGDTVTQ	0.1010	16759.0	50.00
DRB1_1101	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.1010	16763.0	50.00
DRB1_1101	452	ELSPHVMGTDFGRLK	SPHVMGTDF	0.1004	16871.9	50.00
DRB1_1101	350	AQQAVQQTALWQQVL	AQQAVQQTA	0.0989	17152.6	50.00
DRB1_1101	435	DVARSFADAGLDSVL	SFADAGLDS	0.0981	17306.2	50.00
DRB1_1101	205	TSQEFTEPEMWFVRQ	EFTEPEMWF	0.0970	17501.9	50.00
DRB1_1101	430	EALADDVARSFADAG	ADDVARSF	0.0961	17669.7	50.00
DRB1_1101	413	AIATAVGDNFVWAYQ	TAVGDNFVW	0.0952	17858.5	50.00
DRB1_1101	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.0946	17963.3	50.00
DRB1_1101	431	ALADDVARSFADAGL	LADDVARSF	0.0914	18589.5	50.00
DRB1_1101	429	SEALADDVARSFADA	LADDVARSF	0.0875	19408.6	50.00
DRB1_1101	432	LADDVARSFADAGLD	ADDVARSF	0.0873	19433.2	50.00
DRB1_1101	199	VLVVSDTSQEFTEPE	VLVVSDTSQ	0.0870	19495.3	50.00
DRB1_1101	349	EAQQAVQQTALWQQV	AQQAVQQTA	0.0864	19626.9	50.00
DRB1_1101	591	TIAAAQVAETERDNR	IAAAQVAET	0.0860	19726.3	50.00
DRB1_1101	344	ERRKREAQQAVQQTA	RKREAQQAV	0.0857	19771.2	50.00
DRB1_1101	412	NAIATAVGDNFVWAY	TAVGDNFVW	0.0851	19917.0	50.00
DRB1_1101	17	RKWGDTVTVPDDPRR	RKWGDTVTQ	0.0839	20179.9	50.00
DRB1_1101	204	DTSQEFTEPEMWFVR	EFTEPEMWF	0.0827	20444.5	50.00
DRB1_1101	361	QQVLGDGFNDLTADV	QQVLGDGFN	0.0821	20578.1	50.00
DRB1_1101	362	QVLGDGFNDLTADVD	FNDLTADVD	0.0802	20987.4	50.00
DRB1_1101	345	RKREAQQAVQQTAL	AQQAVQQTA	0.0795	21144.6	50.00
DRB1_1101	400	TAHWAEIGNDVENAI	HWAEIGNDV	0.0787	21346.0	50.00
DRB1_1101	348	REAQQAVQQTALWQQ	AQQAVQQTA	0.0781	21488.7	50.00
DRB1_1101	133	DIPVDDISTDVRRAP	ISTDVRRAP	0.0770	21730.0	50.00
DRB1_1101	433	ADDVARSFADAGLDS	VARSFADAG	0.0767	21810.6	50.00
DRB1_1101	434	DDVARSFADAGLDSV	SFADAGLDS	0.0764	21867.0	50.00
DRB1_1101	347	KREAQQAVQQTALWQ	AQQAVQQTA	0.0764	21885.3	50.00
DRB1_1101	365	GDGFNDLTADVHDHL	GFNDLTADV	0.0762	21919.4	50.00
DRB1_1101	364	LGDGFNDLTADVHDH	GFNDLTADV	0.0756	22054.5	50.00
DRB1_1101	399	PTAHWAEIGNDVENA	HWAEIGNDV	0.0753	22142.5	50.00
DRB1_1101	24	TQPDDPRRVGVIVEL	PRRVGVIVE	0.0739	22477.8	50.00
DRB1_1101	275	NDKELNEESNFPAIV	LNEESNFPA	0.0733	22629.3	50.00
DRB1_1101	411	ENAIATAVGDNFVWA	TAVGDNFVW	0.0726	22793.5	50.00
DRB1_1101	428	RSEALADDVARSFAD	LADDVARSF	0.0710	23202.1	50.00
DRB1_1101	410	VENAIATAVGDNFVW	AIATAVGDN	0.0706	23281.5	50.00
DRB1_1101	274	LNDKELNEESNFPAI	LNEESNFPA	0.0703	23368.8	50.00
DRB1_1101	346	RKREAQQAVQQTALW	AQQAVQQTA	0.0693	23630.0	50.00
DRB1_1101	273	TLNDKELNEESNFPA	DKELNEESN	0.0677	24045.7	50.00
DRB1_1101	398	DPTAHWAEIGNDVEN	HWAEIGNDV	0.0675	24083.0	50.00
DRB1_1101	401	AHWAEIGNDVENAI A	HWAEIGNDV	0.0668	24274.4	50.00
DRB1_1101	363	VLGDGFNDLTADVHD	FNDLTADVD	0.0665	24351.0	50.00
DRB1_1101	366	DGFNDLTADVHDHLR	FNDLTADVD	0.0663	24397.9	50.00
DRB1_1101	203	SDTSQEFTEPEMWFV	EFTEPEMWF	0.0656	24586.6	50.00
DRB1_1101	426	YQRSEALADDVARSF	YQRSEALAD	0.0638	25072.6	50.00
DRB1_1101	409	DVENAIATAVGDNFV	VENAIATAV	0.0619	25583.7	50.00
DRB1_1101	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.0618	25611.6	50.00
DRB1_1101	369	NDLTADVVDHDLRTRF	VDHDLRTRF	0.0617	25636.9	50.00
DRB1_1101	592	IAAAQVAETERDNRI	IAAAQVAET	0.0612	25784.3	50.00
DRB1_1101	383	FRTVTEDAERQIDSC	FRTVTEDAE	0.0606	25951.4	50.00
DRB1_1101	90	LNLPAARVGDDEATV	LNLPAARVG	0.0599	26144.5	50.00
DRB1_1101	397	CDPTAHWAEIGNDVE	TAHWAEIGN	0.0588	26472.4	50.00
DRB1_1101	367	GFNDLTADVVDHDLRT	FNDLTADVD	0.0586	26526.3	50.00
DRB1_1101	427	QRSEALADDVARSF	EALADDVAR	0.0579	26722.1	50.00
DRB1_1101	402	HWAEIGNDVENAIAT	HWAEIGNDV	0.0578	26745.0	50.00
DRB1_1101	96	RVGDDEATVVITVVS	ATVVITVVS	0.0572	26915.7	50.00
DRB1_1101	408	NDVENAIATAVGDNF	VENAIATAV	0.0560	27293.4	50.00
DRB1_1101	407	GNDVENAIATAVGDN	VENAIATAV	0.0558	27332.4	50.00
DRB1_1101	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.0541	27851.6	50.00
DRB1_1101	392	RQIDSCDPTAHWAEI	IDSCDPTAH	0.0538	27921.3	50.00
DRB1_1101	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.0533	28073.6	50.00

DRB1_1101	596	QVAETERDNRIRELQ	QVAETERDN	0.0530	28166.7	50.00
DRB1_1101	406	IGNDVENAIATAVGD	VENAIATAV	0.0519	28512.3	50.00
DRB1_1101	405	EIGNDVENAIATAVG	NDVENAIAT	0.0485	29573.7	50.00
DRB1_1101	202	VSDTSQEFTEPEMWF	EFTPEMWF	0.0472	30004.6	50.00
DRB1_1101	403	WAEIGNDVENAIATA	WAEIGNDVE	0.0464	30265.1	50.00
DRB1_1101	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.0456	30542.4	50.00
DRB1_1101	404	AEIGNDVENAIATAV	NDVENAIAT	0.0452	30646.7	50.00
DRB1_1101	595	AQVAETERDNRIREL	QVAETERDN	0.0446	30864.3	50.00
DRB1_1101	396	SCDPTAHWAEIGNDV	TAHWAEIGN	0.0444	30921.8	50.00
DRB1_1101	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.0431	31367.0	50.00
DRB1_1101	191	GLLPEADAVLVVSDT	LPEADAVLV	0.0426	31531.0	50.00
DRB1_1101	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.0412	32003.6	50.00
DRB1_1101	594	AAQVAETERDNRIRE	QVAETERDN	0.0407	32190.8	50.00
DRB1_1101	132	VDIPVDDISTDVRR	VDDISTDVR	0.0394	32660.2	50.00
DRB1_1101	393	QIDSCDPTAHWAEIG	IDSCDPTAH	0.0387	32905.6	50.00
DRB1_1101	593	AAAQVAETERDNRIR	AAQVAETER	0.0367	33623.3	50.00
DRB1_1101	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.0366	33667.0	50.00
DRB1_1101	384	RTVTEDAERQIDSCD	VTEDAERQI	0.0357	33994.2	50.00
DRB1_1101	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.0333	34857.6	50.00
DRB1_1101	386	VTEDAERQIDSCDPT	VTEDAERQI	0.0332	34927.4	50.00
DRB1_1101	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.0331	34966.3	50.00
DRB1_1101	385	TVTEDAERQIDSCDP	EDAERQIDS	0.0327	35109.3	50.00
DRB1_1101	23	VTQPDDPRRVGVIVE	PRRVGVIVE	0.0322	35275.3	50.00
DRB1_1101	91	NLPAARVGDDEATVV	LPAARVGDD	0.0310	35742.5	50.00
DRB1_1101	368	FNDLTADVHDHLRTR	FNDLTADV	0.0310	35749.0	50.00
DRB1_1101	395	DSCDPTAHWAEIGND	TAHWAEIGN	0.0300	36139.9	50.00
DRB1_1101	18	KWGDTVTPDDPRRV	WGDTVTPD	0.0294	36389.8	50.00
DRB1_1101	19	WGDTVTPDDPRRVG	WGDTVTPD	0.0255	37926.6	50.00
DRB1_1101	120	VLAAGPDGTTAAVDI	LAAGPDGTT	0.0247	38276.6	50.00
DRB1_1101	22	TVTQPDDPRRVGVIV	QPDDPRRVG	0.0233	38848.2	50.00
DRB1_1101	92	LPAARVGDDEATVVI	AARVGDDEA	0.0225	39216.9	50.00
DRB1_1101	94	AARVGDDEATVVITV	AARVGDDEA	0.0223	39271.3	50.00
DRB1_1101	131	AVDIPVDDISTDVRR	DIPVDDIST	0.0215	39626.8	50.00
DRB1_1101	93	PAARVGDDEATVVIT	AARVGDDEA	0.0209	39887.1	50.00
DRB1_1101	127	GTTAAVDIPVDDIST	TTAAVDIPV	0.0209	39897.8	50.00
DRB1_1101	121	LAAGPDGTTAAVDIP	LAAGPDGTT	0.0197	40420.1	50.00
DRB1_1101	126	DGTTAAVDIPVDDIS	TTAAVDIPV	0.0192	40641.1	50.00
DRB1_1101	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.0189	40760.5	50.00
DRB1_1101	125	PDGTTAAVDIPVDDI	TTAAVDIPV	0.0188	40804.2	50.00
DRB1_1101	130	AAVDIPVDDISTDVR	DIPVDDIST	0.0179	41211.0	50.00
DRB1_1101	95	ARVGDDEATVVITVV	RVGDDEATV	0.0170	41618.4	50.00
DRB1_1101	20	GDTVTPDDPRRVGV	TVTQPDDPR	0.0167	41725.2	50.00
DRB1_1101	124	FPDGTTAAVDIPVDD	TTAAVDIPV	0.0164	41886.7	50.00
DRB1_1101	129	TAAVDIPVDDISTDV	AVDIPVDDI	0.0156	42214.3	50.00
DRB1_1101	21	DTVTQPDDPRRVGVI	QPDDPRRVG	0.0153	42370.8	50.00
DRB1_1101	123	AGPDGTTAAVDIPVD	TTAAVDIPV	0.0137	43116.3	50.00
DRB1_1101	122	AAGPDGTTAAVDIPV	TTAAVDIPV	0.0115	44144.8	50.00

Allele: DRB1_1101. Number of high binders 55. Number of weak binders 91. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_1302	238	PRWREIVNANAHLQ	IVNANAHL	0.8526	4.9	SB	0.05
DRB1_1302	239	RWREIVNANAHLQR	IVNANAHL	0.8482	5.2	SB	0.05
DRB1_1302	240	WREIVNANAHLQRA	IVNANAHL	0.8429	5.5	SB	0.05
DRB1_1302	237	YPRWREIVNANAHL	IVNANAHL	0.8342	6.0	SB	0.05
DRB1_1302	241	REIVNANAHLQRAR	IVNANAHL	0.8332	6.1	SB	0.05
DRB1_1302	242	EIVNANAHLQRARV	IVNANAHL	0.8127	7.6	SB	0.10
DRB1_1302	243	LVNANAHLQRARVP	IVNANAHL	0.7872	10.0	SB	0.20
DRB1_1302	77	LLKQKGSQLLNSLLN	LKQKGSQLL	0.7642	12.8	SB	0.40
DRB1_1302	75	AGLLKQKGSQLLNSL	LKQKGSQLL	0.7591	13.5	SB	0.40
DRB1_1302	76	GLLKQKGSQLLNSLL	LKQKGSQLL	0.7566	13.9	SB	0.40
DRB1_1302	73	VIAGLLKQKGSQLLN	LKQKGSQLL	0.7551	14.2	SB	0.40
DRB1_1302	72	VVIAGLLKQKGSQLL	LKQKGSQLL	0.7496	15.0	SB	0.80
DRB1_1302	74	IAGLLKQKGSQLLNS	LKQKGSQLL	0.7494	15.0	SB	0.80
DRB1_1302	78	LKQKGSQLLNSLLNL	LKQKGSQLL	0.7371	17.2	SB	0.80
DRB1_1302	260	IIAVSLLRSHAVTL	LLRSHAVTL	0.7223	20.2	SB	0.80

DRB1_1302	489	SYGGVVMIGMLSSVV	MIGMLSSVV	0.7071	23.8	SB	1.00
DRB1_1302	261	IAVSSLLRSHAVTLN	LLRSHAVTL	0.7020	25.1	SB	2.00
DRB1_1302	262	YVSSLLRSHAVTLND	LLRSHAVTL	0.7001	25.7	SB	2.00
DRB1_1302	490	AVGGVVMRIGMLSSVVG	MIGMLSSVV	0.6993	25.9	SB	2.00
DRB1_1302	255	RVPMPPIIAVSSLLRS	MPIIAVSSL	0.6875	29.4	SB	2.00
DRB1_1302	491	GGVVMIGMLSSVVGL	MIGMLSSVV	0.6857	30.0	SB	2.00
DRB1_1302	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.6846	30.3	SB	2.00
DRB1_1302	83	SQLLNLSLLNLPAARV	LLNLPAARV	0.6814	31.4	SB	2.00
DRB1_1302	254	ARVPMPPIIAVSSLLR	MPIIAVSSL	0.6788	32.3	SB	2.00
DRB1_1302	256	VPMPPIIAVSSLLRSH	MPIIAVSSL	0.6587	40.1	SB	4.00
DRB1_1302	476	LRRGHKMIIGMRGSY	LRRGHKMI	0.6576	40.6	SB	4.00
DRB1_1302	84	QLLNLSLLNLPAARVG	LLNLPAARV	0.6550	41.8	SB	4.00
DRB1_1302	494	VMIGMLSSVVGLGLF	MIGMLSSVV	0.6546	42.0	SB	4.00
DRB1_1302	473	SKPLRRGHKMIIGMR	LRRGHKMI	0.6544	42.1	SB	4.00
DRB1_1302	472	ESKPLRRGHKMIIGM	LRRGHKMI	0.6540	42.3	SB	4.00
DRB1_1302	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.6526	42.9	SB	4.00
DRB1_1302	492	GVMIGMLSSVVGLG	MIGMLSSVV	0.6508	43.7	SB	4.00
DRB1_1302	493	VVMIGMLSSVVGLGL	MIGMLSSVV	0.6489	44.7	SB	4.00
DRB1_1302	257	PMPPIIAVSSLLRSHA	MPIIAVSSL	0.6439	47.1	SB	4.00
DRB1_1302	65	ITDPQVRVVIAGLLK	VRVVIAGLL	0.6429	47.6	SB	4.00
DRB1_1302	66	TDPQVRVVIAGLLKQ	VRVVIAGLL	0.6423	47.9	SB	4.00
DRB1_1302	258	MPIIAVSSLLRSHAV	MPIIAVSSL	0.6409	48.7	SB	4.00
DRB1_1302	474	KPLRRGHKMIIGMRG	LRRGHKMI	0.6405	48.9	SB	4.00
DRB1_1302	67	RITDPQVRVVIAGLLKQ	VRVVIAGLL	0.6390	49.7	SB	4.00
DRB1_1302	64	RDTPQVRVVIAGLL	VRVVIAGLL	0.6384	50.0	WB	4.00
DRB1_1302	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.6362	51.2	WB	4.00
DRB1_1302	79	KQGSQLLNSLLNLP	KSQLLNSLL	0.6356	51.6	WB	4.00
DRB1_1302	583	SLTESLQATIAAAQV	QATIAAAQV	0.6333	52.8	WB	4.00
DRB1_1302	475	PLRRGHKMIIGMRGS	LRRGHKMI	0.6321	53.5	WB	4.00
DRB1_1302	584	LTESLQATIAAAQVA	QATIAAAQV	0.6281	55.9	WB	4.00
DRB1_1302	80	PQGSQLLNSLLNLP	KSQLLNSLL	0.6277	56.2	WB	4.00
DRB1_1302	68	PQVRVVIAGLLKQK	VRVVIAGLL	0.6245	58.1	WB	4.00
DRB1_1302	253	RARVPMPPIIAVSSLL	MPIIAVSSL	0.6241	58.4	WB	4.00
DRB1_1302	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.6162	63.6	WB	4.00
DRB1_1302	81	GKSQLLNSLLNLPAA	KSQLLNSLL	0.6110	67.3	WB	4.00
DRB1_1302	69	QVRVVIAGLLKQKGS	VRVVIAGLL	0.6076	69.8	WB	4.00
DRB1_1302	471	MESKPLRRGHKMIIG	LRRGHKMI	0.6040	72.6	WB	8.00
DRB1_1302	85	LLNSLLNLPAARVGD	LLNLPAARV	0.6023	73.9	WB	8.00
DRB1_1302	495	MIGMLSSVVGLGLFN	MIGMLSSVV	0.6021	74.1	WB	8.00
DRB1_1302	348	REAQQAVQQTALWQQ	QAVQQTALW	0.5990	76.6	WB	8.00
DRB1_1302	585	TESLQATIAAAQVAE	QATIAAAQV	0.5974	78.0	WB	8.00
DRB1_1302	349	EAQQAVQQTALWQQV	QAVQQTALW	0.5969	78.4	WB	8.00
DRB1_1302	86	LNSLLNLPAARVGDD	LLNLPAARV	0.5900	84.4	WB	8.00
DRB1_1302	34	VIVELIDHTIAIAKL	ELIDHTIAI	0.5898	84.7	WB	8.00
DRB1_1302	586	ESLQATIAAAQVAET	QATIAAAQV	0.5837	90.4	WB	8.00
DRB1_1302	35	IVELIDHTIAIAKLN	ELIDHTIAI	0.5773	96.9	WB	8.00
DRB1_1302	350	AQQAVQQTALWQQVL	QAVQQTALW	0.5769	97.3	WB	8.00
DRB1_1302	470	RMESKPLRRGHKMI	LRRGHKMI	0.5755	98.7	WB	8.00
DRB1_1302	33	GVIVELIDHTIAIAK	ELIDHTIAI	0.5748	99.6	WB	8.00
DRB1_1302	87	NVLLNLPAARVGDDE	LLNLPAARV	0.5716	103.1	WB	8.00
DRB1_1302	71	RVVIAGLLKQKSQL	LLKQKSQL	0.5662	109.2	WB	8.00
DRB1_1302	351	QQAVQQTALWQQVVG	QAVQQTALW	0.5613	115.1	WB	8.00
DRB1_1302	346	RKREAQQAVQQTALW	QAVQQTALW	0.5600	116.8	WB	8.00
DRB1_1302	236	LYPRWREIVNANAHA	REIVNANAA	0.5586	118.6	WB	8.00
DRB1_1302	587	SLQATIAAAQVAETE	QATIAAAQV	0.5563	121.5	WB	8.00
DRB1_1302	82	KSQLLNSLLNLPAA	KSQLLNSLL	0.5558	122.2	WB	8.00
DRB1_1302	347	KREAQQAVQQTALWQ	QAVQQTALW	0.5553	122.9	WB	8.00
DRB1_1302	488	GSYGGVVMIGMLSSV	VMIGMLSSV	0.5553	122.9	WB	8.00
DRB1_1302	612	QLGILSQVNDNLAGL	LSQVNDNLA	0.5527	126.4	WB	8.00
DRB1_1302	259	PIIAVSSLLRSHAVT	IIAVSSLLR	0.5522	127.1	WB	8.00
DRB1_1302	88	SLLNLPAARVGDDEA	LLNLPAARV	0.5504	129.7	WB	8.00
DRB1_1302	37	ELIDHTIAIAKLN	ELIDHTIAI	0.5475	133.7	WB	8.00
DRB1_1302	36	VELIDHTIAIAKLN	ELIDHTIAI	0.5465	135.1	WB	8.00
DRB1_1302	70	VRVVIAGLLKQKGSQ	VRVVIAGLL	0.5457	136.4	WB	8.00
DRB1_1302	89	LLNLPAARVGDDEAT	LLNLPAARV	0.5391	146.5	WB	8.00
DRB1_1302	477	RRGHKMIIGMRGSYG	MIIGMRGSY	0.5359	151.7	WB	8.00
DRB1_1302	613	LGILSQVNDNLAGLE	LSQVNDNLA	0.5357	152.0	WB	8.00
DRB1_1302	32	VGIVELIDHTIAIA	ELIDHTIAI	0.5320	158.2	WB	16.00
DRB1_1302	505	LGLFNPLSVGAGLIL	LSVGAGLIL	0.5314	159.3	WB	16.00
DRB1_1302	588	LQATIAAAQVAETER	QATIAAAQV	0.5261	168.6	WB	16.00

DRB1_1302	252	QRARVPMPIIAVSSL	MPIIAVSSL	0.5168	186.4	WB	16.00
DRB1_1302	510	PLSVGAGLILGRMAY	LSVGAGLIL	0.5157	188.6	WB	16.00
DRB1_1302	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.5140	192.1	WB	16.00
DRB1_1302	507	LFNPLSVGAGLILGR	LSVGAGLIL	0.5134	193.4	WB	16.00
DRB1_1302	610	QRQLGILSQVNDNLA	LSQVNDNLA	0.5130	194.3	WB	16.00
DRB1_1302	614	GILSQVNDNLAGLEP	LSQVNDNLA	0.5125	195.4	WB	16.00
DRB1_1302	611	RQLGILSQVNDNLAG	LSQVNDNLA	0.5114	197.8	WB	16.00
DRB1_1302	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.5110	198.4	WB	16.00
DRB1_1302	478	RGHKMIIGMRGSYGG	MIIGMRGSY	0.5110	198.5	WB	16.00
DRB1_1302	63	QRITDPQVRVVIAGL	QVRVVIAGL	0.5103	200.0	WB	16.00
DRB1_1302	506	GLFNPLSVGAGLILG	LSVGAGLIL	0.5002	223.2	WB	16.00
DRB1_1302	486	MRGSYGGVVMIGMLS	MRGSYGGVV	0.4992	225.6	WB	16.00
DRB1_1302	589	QATIAAAQVAETERD	QATIAAAQV	0.4951	235.9	WB	16.00
DRB1_1302	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.4928	241.8	WB	16.00
DRB1_1302	352	QAVQQTALWQQVLGD	QAVQQTALW	0.4916	245.0	WB	16.00
DRB1_1302	31	RVGVIVELIDHTIAI	ELIDHTIAI	0.4901	248.8	WB	16.00
DRB1_1302	188	ATLGLLPEADAVLVV	LPEADAVLV	0.4881	254.4	WB	16.00
DRB1_1302	485	GMLSSVVGVLGFLNP	MRGSYGGVV	0.4858	260.7	WB	16.00
DRB1_1302	187	SATLGLLPEADAVLV	LPEADAVLV	0.4825	270.2	WB	16.00
DRB1_1302	404	AEIGNDVENAIATAV	VENAIATAV	0.4778	284.5	WB	16.00
DRB1_1302	496	IGMLSSVVGVLGFLNP	LSSVVGLGL	0.4771	286.4	WB	16.00
DRB1_1302	405	EIGNDVENAIATAVG	VENAIATAV	0.4748	293.6	WB	16.00
DRB1_1302	189	TLGLLPEADAVLVVS	LPEADAVLV	0.4745	294.8	WB	16.00
DRB1_1302	615	ILSQVNDNLAGLEPT	LSQVNDNLA	0.4737	297.2	WB	16.00
DRB1_1302	497	GMLSSVVGVLGFLNPL	LSSVVGLGL	0.4725	301.0	WB	16.00
DRB1_1302	482	MIIGMRGSYGGVVM	MRGSYGGVV	0.4725	301.1	WB	16.00
DRB1_1302	59	TRARQRITDPQVRV	RITDPQVRV	0.4705	307.5	WB	16.00
DRB1_1302	101	EATVVITVVSYSAP	VITVVSYS	0.4651	326.2	WB	16.00
DRB1_1302	406	IGNDVENAIATAVGD	VENAIATAV	0.4641	329.7	WB	16.00
DRB1_1302	100	DEATVVITVVSYSAP	VITVVSYS	0.4588	349.2	WB	16.00
DRB1_1302	60	RARQRITDPQVRVVI	RITDPQVRV	0.4587	349.5	WB	16.00
DRB1_1302	407	GNDVENAIATAVGDN	VENAIATAV	0.4580	352.2	WB	16.00
DRB1_1302	105	VITVVSYSAPPSARL	YSAPPSARL	0.4549	364.2	WB	16.00
DRB1_1302	61	ARQRITDPQVRVIA	RITDPQVRV	0.4547	365.0	WB	16.00
DRB1_1302	487	RGSYGGVVMIGMLSS	GGVVMIGML	0.4545	365.9	WB	16.00
DRB1_1302	480	HKMIIGMRGSYGGVV	MIIGMRGSY	0.4535	369.9	WB	16.00
DRB1_1302	235	DLMYRREIVNANAA	REIVNANAA	0.4532	371.1	WB	16.00
DRB1_1302	190	LGLLPEADAVLVSD	LPEADAVLV	0.4507	381.1	WB	16.00
DRB1_1302	102	ATVVITVVSYSAPPS	VITVVSYS	0.4484	390.8	WB	16.00
DRB1_1302	408	NDVENAIATAVGDNF	VENAIATAV	0.4476	394.3	WB	16.00
DRB1_1302	556	KQSRDLKMIQRLLR	RLKMIQRLL	0.4441	409.2	WB	32.00
DRB1_1302	223	ICPVGAVVATKTDLY	VVATKTDLY	0.4435	411.9	WB	32.00
DRB1_1302	58	LTRARQRITDPQVRV	RITDPQVRV	0.4408	424.3	WB	32.00
DRB1_1302	481	KMIIGMRGSYGGVVM	MIIGMRGSY	0.4360	447.0	WB	32.00
DRB1_1302	222	QICPVGAVVATKTDL	QICPVGAVV	0.4352	451.0	WB	32.00
DRB1_1302	191	GLLPEADAVLVSDT	LPEADAVLV	0.4345	454.2	WB	32.00
DRB1_1302	62	RQRITDPQVRVVIAG	RITDPQVRV	0.4335	459.3	WB	32.00
DRB1_1302	499	LSSVVGLGFLFNPLSV	LSSVVGLGL	0.4332	460.7	WB	32.00
DRB1_1302	479	GHKMIIGMRGSYGGV	MIIGMRGSY	0.4328	462.9	WB	32.00
DRB1_1302	153	EVLRVEVGAPSPLLR	VEVGAPSP	0.4312	471.0	WB	32.00
DRB1_1302	152	REVLRVEVGAPSPLL	VEVGAPSP	0.4298	477.8	WB	32.00
DRB1_1302	557	QSRDLKMIQRLLRD	RLKMIQRLL	0.4286	484.1	WB	32.00
DRB1_1302	103	TVVITVVSYSAPPSA	TVVITVVS	0.4274	490.4	WB	32.00
DRB1_1302	212	PEMWFVRQAHQICPV	WFVRQAHQI	0.4270	492.7	WB	32.00
DRB1_1302	99	DDEATVVITVVSYS	VITVVSYS	0.4263	496.3	WB	32.00
DRB1_1302	483	IIGMRGSYGGVVMIG	MRGSYGGVV	0.4253	501.9	WB	32.00
DRB1_1302	217	VRQAHQICPVGAVVA	QICPVGAVV	0.4250	503.2	WB	32.00
DRB1_1302	578	EEITRSLTESLQATI	LTESLQATI	0.4242	508.0	WB	32.00
DRB1_1302	409	DVENAIATAVGDNFV	VENAIATAV	0.4219	520.5	WB	32.00
DRB1_1302	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.4192	536.2	WB	32.00
DRB1_1302	154	VLRVEVGAPSPLLRG	VEVGAPSP	0.4181	542.7	WB	32.00
DRB1_1302	410	VENAIATAVGDNFVW	VENAIATAV	0.4173	546.9	WB	32.00
DRB1_1302	504	GLGLFNPLSVGAGLI	PLSVGAGLI	0.4156	557.0	WB	32.00
DRB1_1302	224	CPVGAVVATKTDLYP	VVATKTDLY	0.4145	563.8	WB	32.00
DRB1_1302	106	ITVVSYSAPPSARLV	YSAPPSARL	0.4136	569.2	WB	32.00
DRB1_1302	345	RRKREAQQAVQQTAL	QQAVQQTAL	0.4125	576.1	WB	32.00
DRB1_1302	218	RQAHQICPVGAVVAT	QICPVGAVV	0.4105	588.9	WB	32.00
DRB1_1302	213	EMWFVRQAHQICPVG	WFVRQAHQI	0.4095	595.1	WB	32.00
DRB1_1302	151	GREVLRVEVGAPSP	VEVGAPSP	0.4064	615.7	WB	32.00
DRB1_1302	192	LLPEADAVLVSDTS	LPEADAVLV	0.4062	616.9	WB	32.00

DRB1_1302	498	MLSSVVGLGLFNPLS	LSSVVGLGL	0.4048	626.2	32.00
DRB1_1302	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.4046	627.7	32.00
DRB1_1302	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.4042	630.8	32.00
DRB1_1302	559	HQRLKMIQRLLRDHY	RLKMIQRLL	0.4040	632.1	32.00
DRB1_1302	221	RDICPVGAVVATKTD	QICPVGAVV	0.4038	633.4	32.00
DRB1_1302	521	RMAYKEDKQNRLLRV	YKEDKQNRL	0.4035	634.9	32.00
DRB1_1302	225	PVGAVVATKTDLYPR	VVATKTDLY	0.4030	638.5	32.00
DRB1_1302	216	FVRQAHQICPVGAVV	QICPVGAVV	0.4022	644.0	32.00
DRB1_1302	220	AHQICPVGAVVATKT	QICPVGAVV	0.4015	648.9	32.00
DRB1_1302	298	SPATERVVRAGVLGEI	TERVRAGVL	0.4010	652.8	32.00
DRB1_1302	211	SRMWFVRQAHQICP	WFVRQAHQI	0.4005	656.4	32.00
DRB1_1302	532	LLRVRSEAKANVRRF	VRSEAKANV	0.4001	659.0	32.00
DRB1_1302	214	MWFVRQAHQICPVGA	WFVRQAHQI	0.3972	680.4	32.00
DRB1_1302	226	VGAVVATKTDLYPRW	VVATKTDLY	0.3922	717.6	32.00
DRB1_1302	579	EITRSLTESLQATIA	LTESLQATI	0.3905	731.3	32.00
DRB1_1302	558	SRDRLKMIQRLLRDH	RLKMIQRLL	0.3901	734.7	32.00
DRB1_1302	562	LKMIQRLLRDHYREI	LLRDHYREI	0.3890	742.9	32.00
DRB1_1302	418	VGDNFVWAYQRSEAL	WAYQRSEAL	0.3886	746.6	32.00
DRB1_1302	249	AHLQRRARVPMPIIAV	RVPMPPIIAV	0.3881	750.3	32.00
DRB1_1302	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.3867	761.8	32.00
DRB1_1302	522	MAYKEDKQNRLLRVR	YKEDKQNRL	0.3861	766.5	32.00
DRB1_1302	523	AYKEDKQNRLLRVRS	YKEDKQNRL	0.3842	782.4	32.00
DRB1_1302	193	LPEADAVLVVSDTSQ	LPEADAVLV	0.3832	790.9	32.00
DRB1_1302	299	RATERVRAGVLGEIR	TERVRAGVL	0.3830	793.3	32.00
DRB1_1302	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.3812	809.0	32.00
DRB1_1302	107	TVVSYSAQPSARLVL	YSAQPSARL	0.3801	818.7	32.00
DRB1_1302	247	NAAHLQRRARVPMPII	RARVPMPII	0.3796	822.5	32.00
DRB1_1302	561	RLKMIQRLLRDHYRE	RLKMIQRLL	0.3782	835.2	32.00
DRB1_1302	609	LQRQLGILSQVNDNL	ILSQVNDNL	0.3775	841.7	32.00
DRB1_1302	580	ITRSLTESLQATIAA	LTESLQATI	0.3774	842.3	32.00
DRB1_1302	210	TEPEMWFVRQAHQIC	WFVRQAHQI	0.3770	846.2	32.00
DRB1_1302	530	NRLLRVRSEAKANVR	VRSEAKANV	0.3746	868.2	32.00
DRB1_1302	582	RSLTESLQATIAAAQ	LTESLQATI	0.3736	877.6	32.00
DRB1_1302	219	QAHQICPVGAVVATK	QICPVGAVV	0.3733	880.4	32.00
DRB1_1302	155	LRVEVGAPSPLLRGG	VEVGAPSP	0.3730	883.2	32.00
DRB1_1302	248	AAHLQRRARVPMPIIA	RARVPMPII	0.3725	888.8	32.00
DRB1_1302	605	RIRELQRQLGILSQV	RQLGILSQV	0.3711	901.5	32.00
DRB1_1302	306	AGVLGEIRSATEQLA	EIRSATEQL	0.3705	907.4	32.00
DRB1_1302	104	VVITVVSYSQAQPSAR	VITVVSYS	0.3700	912.7	32.00
DRB1_1302	108	VVSYSQAQPSARLVLA	YSAQPSARL	0.3693	919.5	32.00
DRB1_1302	533	LRVRSEAKANVRRFV	EAKANVRRF	0.3688	924.5	32.00
DRB1_1302	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.3687	926.1	32.00
DRB1_1302	524	YKEDKQNRLLRVRSE	YKEDKQNRL	0.3674	939.0	32.00
DRB1_1302	512	SVGAGLILGRMAYKE	LILGRMAYK	0.3652	961.8	32.00
DRB1_1302	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.3639	974.6	32.00
DRB1_1302	307	GVLGEIRSATEQLAV	LGEIRSATE	0.3637	977.6	32.00
DRB1_1302	323	LGSELSVVNDPNLRD	LSVVNDPNL	0.3636	977.9	32.00
DRB1_1302	581	TRSLTESLQATIAAAA	LTESLQATI	0.3625	990.1	32.00
DRB1_1302	244	VNANAHLQRRARVPM	AAHLQRRARV	0.3618	997.2	32.00
DRB1_1302	29	PRRVGIVELIDHTI	IVELIDHTI	0.3607	1009.3	32.00
DRB1_1302	38	LIDHTIAIAKLNERG	DHTIAIAKL	0.3605	1011.8	32.00
DRB1_1302	305	RAGVLGEIRSATEQL	EIRSATEQL	0.3603	1013.4	32.00
DRB1_1302	419	GDNFVWAYQRSEALA	WAYQRSEAL	0.3590	1027.9	32.00
DRB1_1302	463	GRLKALGRMESKPLR	LGRMESKPL	0.3585	1034.1	32.00
DRB1_1302	156	REVEVGAPSPLLRGG	VEVGAPSP	0.3584	1035.4	32.00
DRB1_1302	317	EQLAVALGSELSVVN	LAVSLGSEL	0.3573	1047.2	32.00
DRB1_1302	250	HLQRRARVPMPIIAVS	RVPMPPIIAV	0.3561	1061.1	32.00
DRB1_1302	531	RLLRVRSEAKANVRR	VRSEAKANV	0.3553	1070.5	32.00
DRB1_1302	606	IRELQRQLGILSQVN	RQLGILSQV	0.3553	1070.6	32.00
DRB1_1302	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.3494	1140.7	32.00
DRB1_1302	109	VSYSAQPSARLVLAA	YSAQPSARL	0.3477	1162.4	32.00
DRB1_1302	513	VLGAGLILGRMAYKED	LILGRMAYK	0.3475	1164.9	32.00
DRB1_1302	296	VSERATERVRAGVLG	TERVRAGVL	0.3465	1177.5	32.00
DRB1_1302	195	EADAVLVVSDTSQEF	VVSDTSQEF	0.3464	1178.6	32.00
DRB1_1302	30	RRVGIVELIDHTIA	IVELIDHTI	0.3459	1184.2	32.00
DRB1_1302	529	QNRLLRVRSEAKANV	VRSEAKANV	0.3454	1190.9	32.00
DRB1_1302	300	ATERVRAGVLGEIRS	TERVRAGVL	0.3447	1200.7	32.00
DRB1_1302	420	DNFVWAYQRSEALAD	WAYQRSEAL	0.3446	1200.9	32.00
DRB1_1302	607	RELQRQLGILSQVND	RQLGILSQV	0.3438	1211.4	32.00
DRB1_1302	555	SKQSRDRLKMIQRLL	RLKMIQRLL	0.3423	1231.3	32.00

DRB1_1302	303	RVRAGVLGEIRSATE	LGEIRSATE	0.3423	1231.4	32.00
DRB1_1302	308	VLGEIRSATEQLAVS	EIRSATEQL	0.3417	1240.3	32.00
DRB1_1302	159	VGAPSPLLRGGLAFI	LLRGGLAFI	0.3406	1254.5	32.00
DRB1_1302	322	LRGSELSVVNDPNLR	LSVVNDPNL	0.3400	1262.9	32.00
DRB1_1302	534	RVRSEAKANVRRFVD	EAKANVRRF	0.3400	1263.1	32.00
DRB1_1302	309	LGEIRSATEQLAVSL	LGEIRSATE	0.3399	1263.9	32.00
DRB1_1302	313	RSATEQLAVSLGSEL	LAVSLGSEL	0.3392	1273.0	32.00
DRB1_1302	227	GAVVATKTDLYPRWR	VVATKTDLY	0.3388	1279.9	32.00
DRB1_1302	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.3387	1281.1	32.00
DRB1_1302	157	VEVGAPSPLLRGGLA	VEVGAPSPL	0.3384	1284.6	32.00
DRB1_1302	462	FVGLKALGRMESKPL	LGRMESKPL	0.3372	1301.6	32.00
DRB1_1302	318	QLAVSLGSELSVVND	LAVSLGSEL	0.3355	1325.7	32.00
DRB1_1302	52	GDLVQRLTRARQRIT	LTRARQRIT	0.3349	1334.9	32.00
DRB1_1302	301	TERVRAGVLGEIRSA	TERVRAGVL	0.3332	1359.3	32.00
DRB1_1302	251	LQRARVPMPIIAVSS	RVPMPIIAV	0.3323	1372.8	32.00
DRB1_1302	97	VGDEATVVITVVSYS	TVVITVVSYS	0.3320	1377.2	32.00
DRB1_1302	314	SATEQLAVSLGSELS	LAVSLGSEL	0.3298	1409.4	50.00
DRB1_1302	110	YSAQPSARLVLAAG	YSAQPSARL	0.3293	1417.1	50.00
DRB1_1302	421	NFVWAYQRSEALADD	WAYQRSEAL	0.3281	1435.5	50.00
DRB1_1302	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.3278	1441.4	50.00
DRB1_1302	246	ANAAHLQARARVPMPI	AAHLQARARV	0.3277	1442.9	50.00
DRB1_1302	608	ELQRQLGILSQVNDN	LQRQLGILS	0.3271	1452.2	50.00
DRB1_1302	514	GAGLILGRMAYKEDK	LILGRMAYK	0.3271	1452.2	50.00
DRB1_1302	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.3257	1474.6	50.00
DRB1_1302	196	ADAVLVVSDTSQEFT	VVSDTSQEF	0.3250	1484.7	50.00
DRB1_1302	603	DNRIRELQRQLGILS	LQRQLGILS	0.3246	1492.3	50.00
DRB1_1302	354	VQQTALWQQVLGDGF	WQQVLGDGF	0.3244	1495.2	50.00
DRB1_1302	98	GDDEATVVITVVSYS	TVVITVVSYS	0.3235	1509.3	50.00
DRB1_1302	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.3231	1515.9	50.00
DRB1_1302	165	LLRGGLAFIDTPGVG	LLRGGLAFI	0.3227	1522.1	50.00
DRB1_1302	111	YSAQPSARLVLAAGP	YSAQPSARL	0.3225	1525.2	50.00
DRB1_1302	304	VRAGVLGEIRSATEQ	LGEIRSATE	0.3224	1527.9	50.00
DRB1_1302	295	QVLSRATERVRAGVL	TERVRAGVL	0.3222	1530.4	50.00
DRB1_1302	164	PLLRGGLAFIDTPGV	LLRGGLAFI	0.3209	1552.4	50.00
DRB1_1302	297	LSRATERVRAGVLGE	TERVRAGVL	0.3197	1573.0	50.00
DRB1_1302	604	NRIRELQRQLGILSQ	LQRQLGILS	0.3193	1579.1	50.00
DRB1_1302	574	RIAEIEITRSLTESL	ITRSLTESL	0.3193	1579.2	50.00
DRB1_1302	53	DLVQRLTRARQRITD	LTRARQRIT	0.3176	1609.9	50.00
DRB1_1302	160	GAPSPLLRGGLAFID	LLRGGLAFI	0.3152	1651.7	50.00
DRB1_1302	464	RLKALGRMESKPLRR	LGRMESKPL	0.3149	1657.5	50.00
DRB1_1302	282	ESNFP AIVKFLSEQV	IVKFLSEQV	0.3142	1669.1	50.00
DRB1_1302	355	QQTALWQQVLGDGFN	WQQVLGDGF	0.3134	1683.4	50.00
DRB1_1302	321	VSLGSELSVVNDPNL	LSVVNDPNL	0.3124	1703.0	50.00
DRB1_1302	575	EIAEEITRSLTESLQ	ITRSLTESL	0.3120	1709.4	50.00
DRB1_1302	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.3115	1718.7	50.00
DRB1_1302	535	VRSEAKANVRRFVDD	EAKANVRRF	0.3115	1718.7	50.00
DRB1_1302	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.3096	1754.9	50.00
DRB1_1302	39	IDHTIAIAKLNERGD	DHTIAIAKL	0.3090	1766.9	50.00
DRB1_1302	228	ANVATKTDLYPRWR	VVATKTDLY	0.3088	1770.4	50.00
DRB1_1302	245	NNAAHLQARARVPMPI	AAHLQARARV	0.3087	1772.3	50.00
DRB1_1302	577	AEEITRSLTESLQAT	ITRSLTESL	0.3085	1776.2	50.00
DRB1_1302	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.3067	1810.4	50.00
DRB1_1302	412	NAIATAVGDNFVWAY	IATAVGDNF	0.3065	1815.1	50.00
DRB1_1302	327	LSVVNDPNLRDRLAS	LSVVNDPNL	0.3061	1821.6	50.00
DRB1_1302	283	SNFP AIVKFLSEQVL	IVKFLSEQV	0.3052	1840.8	50.00
DRB1_1302	178	VGGLGQPHLSATLGL	GQPHLSATL	0.3039	1866.0	50.00
DRB1_1302	422	FVWAYQRSEALADDV	WAYQRSEAL	0.3030	1884.6	50.00
DRB1_1302	161	APSPLLRGGLAFIDT	LLRGGLAFI	0.3028	1888.7	50.00
DRB1_1302	563	KMIQRLLRDHYREIA	LLRDHYREI	0.3026	1892.6	50.00
DRB1_1302	527	DKQNRLLRVRSEAKA	LLRVRSEAK	0.3025	1893.7	50.00
DRB1_1302	465	LKALGRMESKPLRRG	LGRMESKPL	0.3019	1906.2	50.00
DRB1_1302	310	GEIRSATEQLAVSLG	ATEQLAVSL	0.3019	1907.5	50.00
DRB1_1302	576	IAEEITRSLTESLQA	ITRSLTESL	0.3010	1924.9	50.00
DRB1_1302	177	GVGGLGQPHLSATLG	GQPHLSATL	0.3005	1936.5	50.00
DRB1_1302	413	AIATAVGDNFVWAYQ	IATAVGDNF	0.2990	1967.6	50.00
DRB1_1302	356	QTALWQQVLGDGFND	WQQVLGDGF	0.2976	1998.8	50.00
DRB1_1302	468	LGRMESKPLRRGHKM	LGRMESKPL	0.2976	1998.9	50.00
DRB1_1302	5	LCAYRDLRRKRARKW	LRRKRARKW	0.2972	2006.5	50.00
DRB1_1302	179	GGLGQPHLSATLGLL	GQPHLSATL	0.2971	2008.3	50.00
DRB1_1302	515	AGLILGRMAYKEDKQ	LILGRMAYK	0.2964	2024.4	50.00

DRB1_1302	197	DAVLVSDTSQEFTE	VVSDTSQEF	0.2961	2029.9	50.00
DRB1_1302	10	DLRRKRARKWGDVT	LRRKRARKW	0.2958	2036.5	50.00
DRB1_1302	57	RLTRARQRITDPQVR	RQRITDPQV	0.2957	2040.3	50.00
DRB1_1302	149	AGGREVLRVEVGAPS	LRVEVGAPS	0.2956	2040.5	50.00
DRB1_1302	176	PGVGGLGQPHLSATL	GQPHLSATL	0.2936	2086.2	50.00
DRB1_1302	444	GLDSVLSAELSPHVM	LDSVLSAEL	0.2935	2087.4	50.00
DRB1_1302	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.2935	2088.3	50.00
DRB1_1302	6	CAYRDLRRKRARKWG	LRRKRARKW	0.2924	2112.4	50.00
DRB1_1302	443	AGLDSVLSAELSPHV	LDSVLSAEL	0.2922	2119.0	50.00
DRB1_1302	11	LRRKRARKWGDVTQ	LRRKRARKW	0.2916	2132.2	50.00
DRB1_1302	617	QVNDNLAGLEPTLT	QVNDNLAGL	0.2914	2136.4	50.00
DRB1_1302	520	GRMAYKEDKQNRLLR	YKEDKQNRL	0.2914	2137.3	50.00
DRB1_1302	9	RDLRRKRARKWGDV	LRRKRARKW	0.2912	2140.0	50.00
DRB1_1302	8	YRDLRRKRARKWGD	LRRKRARKW	0.2911	2142.8	50.00
DRB1_1302	7	AYRDLRRKRARKWGD	LRRKRARKW	0.2907	2151.5	50.00
DRB1_1302	466	KALGRMESKPLRRGH	LGRMESKPL	0.2902	2163.7	50.00
DRB1_1302	357	TALWQQVLGDGFNDL	WQQVLGDGF	0.2896	2178.8	50.00
DRB1_1302	423	VWAYQRSEALADDVA	WAYQRSEAL	0.2873	2233.7	50.00
DRB1_1302	519	LGRMAYKEDKQNRL	YKEDKQNRL	0.2870	2239.5	50.00
DRB1_1302	284	NFPDIVKFLSEQVLS	IVKFLSEQV	0.2868	2245.0	50.00
DRB1_1302	186	LSATLGLLPEADAVL	LLPEADAVL	0.2865	2252.9	50.00
DRB1_1302	358	ALWQQVLGDGFNDLT	WQQVLGDGF	0.2853	2281.5	50.00
DRB1_1302	551	SFVVSKQSRDRLKMI	VSKQSRDRL	0.2849	2291.1	50.00
DRB1_1302	162	PSVLLRGGLAFIDTP	LRGGLAFI	0.2844	2305.1	50.00
DRB1_1302	150	GGREVLRVEVGAPSP	LRVEVGAPS	0.2838	2319.5	50.00
DRB1_1302	54	LVQRLTRARQRITDP	LTRARQRIT	0.2827	2347.5	50.00
DRB1_1302	467	ALGRMESKPLRRGHK	LGRMESKPL	0.2799	2419.6	50.00
DRB1_1302	602	RDNRIRELQRQLGIL	RELQRQLGI	0.2782	2464.5	50.00
DRB1_1302	180	GLGQPHLSATLGLLP	GQPHLSATL	0.2775	2483.2	50.00
DRB1_1302	414	IATAVGDNFVWAYQR	TAVGDNFVW	0.2774	2484.7	50.00
DRB1_1302	552	FVVSKQSRDRLKMIQ	QSRDRLKMI	0.2774	2486.6	50.00
DRB1_1302	267	LRSHAVTLNDKELNE	AVTLNDKEL	0.2770	2498.0	50.00
DRB1_1302	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.2769	2500.5	50.00
DRB1_1302	424	WAYQRSEALADDVAR	WAYQRSEAL	0.2764	2514.0	50.00
DRB1_1302	49	NERGDLVQRLTRARQ	VQRLTRARQ	0.2759	2527.3	50.00
DRB1_1302	50	ERGLDVGRLTRARQR	VQLTRARQR	0.2744	2568.1	50.00
DRB1_1302	516	GGILGRMAYKEDKQN	LILGRMAYK	0.2735	2592.5	50.00
DRB1_1302	601	ERDNRIRELQRQLGI	RELQRQLGI	0.2734	2596.0	50.00
DRB1_1302	163	SPLLRRGGLAFIDTPG	LLRGGLAFI	0.2728	2612.5	50.00
DRB1_1302	525	KEDKQNRLLRVRSEA	DKQNRLLRV	0.2714	2652.3	50.00
DRB1_1302	47	KLNERGDLVQRLTRA	KLNERGDLV	0.2712	2658.2	50.00
DRB1_1302	564	MIQRLLRDHYREIAE	LLRDHYREI	0.2711	2662.2	50.00
DRB1_1302	445	LDSVLSAELSPHVMG	LDSVLSAEL	0.2709	2667.4	50.00
DRB1_1302	311	EIRSATEQLAVSLGS	ATEQLAVSL	0.2705	2679.6	50.00
DRB1_1302	56	QRLTRARQRITDPQV	RQRITDPQV	0.2700	2692.3	50.00
DRB1_1302	290	KFLSEQVLSRATERV	VLSRATERV	0.2696	2703.8	50.00
DRB1_1302	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.2674	2769.7	50.00
DRB1_1302	51	RGDLVQRLTRARQRI	VQRLTRARQ	0.2664	2800.8	50.00
DRB1_1302	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.2658	2819.5	50.00
DRB1_1302	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.2656	2823.3	50.00
DRB1_1302	285	FPAIVKFLSEQVLSR	IVKFLSEQV	0.2646	2854.2	50.00
DRB1_1302	40	DHTIAIAKLNERGDL	DHTIAIAKL	0.2641	2871.8	50.00
DRB1_1302	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.2623	2925.8	50.00
DRB1_1302	28	DPRRRVGVIVELIDHT	RRVGVIVEL	0.2617	2946.8	50.00
DRB1_1302	411	ENAIATAVGDNFVWA	IATAVGDNF	0.2616	2949.8	50.00
DRB1_1302	342	DLERRKREAQQAVQQ	RKREAQQAV	0.2609	2970.2	50.00
DRB1_1302	198	AVLVSDTSQEFTEP	VVSDTSQEF	0.2602	2994.7	50.00
DRB1_1302	181	LGQPHLSATLGLLPE	GQPHLSATL	0.2595	3016.4	50.00
DRB1_1302	55	VQRLTRARQRITDPQ	RLTRARQRI	0.2588	3041.4	50.00
DRB1_1302	403	WAEIGNDVENAIATA	IGNDVENAI	0.2583	3055.9	50.00
DRB1_1302	541	ANVRRFVDDISFVVS	RFVDDISFV	0.2581	3064.0	50.00
DRB1_1302	540	KANVRRFVDDISFVV	RFVDDISFV	0.2572	3092.6	50.00
DRB1_1302	27	DDPRRVGVIVELIDH	RRVGVIVEL	0.2571	3096.3	50.00
DRB1_1302	554	VSKQSRDRLKMIQRL	VSKQSRDRL	0.2567	3109.2	50.00
DRB1_1302	553	VVSKQSRDRLKMIQR	QSRDRLKMI	0.2564	3120.0	50.00
DRB1_1302	439	SFADAGLDSVLSAEL	LDSVLSAEL	0.2548	3175.1	50.00
DRB1_1302	343	LERRKREAQQAVQQT	RKREAQQAV	0.2542	3194.2	50.00
DRB1_1302	618	QVNDNLAGLEPTLTP	QVNDNLAGL	0.2531	3233.0	50.00
DRB1_1302	291	FLSEQVLSRATERVR	VLSRATERV	0.2527	3248.8	50.00
DRB1_1302	344	ERRKREAQQAVQQT	RKREAQQAV	0.2523	3261.5	50.00

DRB1_1302	442	DAGLDSVLSAELSPH	LDSVLSAEL	0.2521	3269.9	50.00
DRB1_1302	536	RSEAKANVRRFVDDI	EAKANVRRF	0.2518	3278.0	50.00
DRB1_1302	26	PDDPRRVGVIVELID	RRVGVIVEL	0.2514	3291.8	50.00
DRB1_1302	565	IQRLLRDHYREIAEE	LLRDHYREI	0.2509	3312.8	50.00
DRB1_1302	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.2498	3350.6	50.00
DRB1_1302	457	VMGTDGRLKALGRM	GRLKALGRM	0.2493	3369.4	50.00
DRB1_1302	341	SDLERRKREAQQAVQ	RKREAQQAV	0.2493	3370.7	50.00
DRB1_1302	287	AIVKFLSEQVLSRAT	IVKFLSEQV	0.2480	3416.8	50.00
DRB1_1302	41	HTIAIAKLNERGDLV	KLNERGDLV	0.2474	3437.2	50.00
DRB1_1302	458	MGTDFGRLKALGRME	GRLKALGRM	0.2465	3472.5	50.00
DRB1_1302	542	NVRRFVDDISFVVS	RFVDDISFV	0.2461	3488.6	50.00
DRB1_1302	440	FADAGLDSVLSAELS	LDSVLSAEL	0.2457	3503.1	50.00
DRB1_1302	360	WQQVLDGDFNDLTAD	WQQVLDGDF	0.2457	3504.6	50.00
DRB1_1302	544	RFVDDISFVVSQSR	RFVDDISFV	0.2451	3524.5	50.00
DRB1_1302	199	VLVSDTSQEFTEPE	VVSDTSQEF	0.2424	3632.1	50.00
DRB1_1302	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.2410	3684.6	50.00
DRB1_1302	95	ARVDDEATVVITVV	EATVVITVV	0.2400	3725.0	50.00
DRB1_1302	194	PEADAVLVVSDTSQE	LVVSDTSQE	0.2396	3743.1	50.00
DRB1_1302	42	TIAIAKLNERGDLVQ	KLNERGDLV	0.2389	3769.1	50.00
DRB1_1302	448	VLSAELSPHVMGTDF	LSAELSPHV	0.2388	3772.6	50.00
DRB1_1302	402	HWAEIGNDVENAIAT	IGNDVENAI	0.2388	3773.2	50.00
DRB1_1302	182	GQPHLSATLGLLPEA	GQPHLSATL	0.2388	3773.9	50.00
DRB1_1302	401	AHWAEIGNDVENAIA	IGNDVENAI	0.2386	3783.4	50.00
DRB1_1302	293	SEQVLSRATERVRAG	VLSRATERV	0.2384	3790.7	50.00
DRB1_1302	24	TQPDDPRRVGVIVEL	RRVGVIVEL	0.2373	3835.4	50.00
DRB1_1302	459	GTDGRLKALGRMES	GRLKALGRM	0.2371	3842.6	50.00
DRB1_1302	548	DISFVVSQSRDRDL	VSKQSRDRL	0.2370	3847.4	50.00
DRB1_1302	518	ILGRMAYKEDKQNR	YKEDKQNR	0.2370	3849.5	50.00
DRB1_1302	96	RVGDDEATVVITVVS	EATVVITVV	0.2369	3854.2	50.00
DRB1_1302	549	DISFVVSQSRDRDLK	VSKQSRDRL	0.2365	3869.6	50.00
DRB1_1302	302	ERVRAVGLGEIRSAT	VRAGVLGEI	0.2357	3902.5	50.00
DRB1_1302	229	VVATKTDLYPRWREI	VVATKTDLY	0.2353	3920.3	50.00
DRB1_1302	292	LSEQVLSRATERVRA	VLSRATERV	0.2342	3967.2	50.00
DRB1_1302	543	VRRFVDDISFVVSQ	RFVDDISFV	0.2324	4043.7	50.00
DRB1_1302	400	TAHWAEIGNDVENAI	IGNDVENAI	0.2322	4055.1	50.00
DRB1_1302	447	SVLSAELSPHVMGTD	LSAELSPHV	0.2318	4072.9	50.00
DRB1_1302	353	AQQQALWQQVLDGDF	QQQALWQQV	0.2315	4084.5	50.00
DRB1_1302	415	ATAVGDNFVWAYQRS	TAVGDNFVW	0.2291	4192.5	50.00
DRB1_1302	43	IAIAKLNERGDLVQR	KLNERGDLV	0.2285	4220.5	50.00
DRB1_1302	469	GRMESKPLRRGHKMI	KPLRRGHKM	0.2282	4231.1	50.00
DRB1_1302	446	DSVLSAELSPHVMGT	LSAELSPHV	0.2268	4298.0	50.00
DRB1_1302	148	HAGGREVLRVEVGAP	VLRVEVGAP	0.2264	4318.5	50.00
DRB1_1302	234	TDLYPRWREIVNANA	RFWIVNANA	0.2257	4349.5	50.00
DRB1_1302	539	AKANVRRFVDDISFV	RFVDDISFV	0.2252	4373.1	50.00
DRB1_1302	288	IVKFLSEQVLSRATE	IVKFLSEQV	0.2250	4381.5	50.00
DRB1_1302	550	ISFVVSQSRDRDLKM	VSKQSRDRL	0.2248	4391.5	50.00
DRB1_1302	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.2248	4391.9	50.00
DRB1_1302	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.2219	4533.5	50.00
DRB1_1302	460	TDFGRLKALGRMESK	GRLKALGRM	0.2209	4583.1	50.00
DRB1_1302	312	IRFATEQLAVSLGSE	ATEQLAVSL	0.2182	4717.6	50.00
DRB1_1302	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.2176	4749.9	50.00
DRB1_1302	48	LNERGDLVQRLTRAR	DLVQRLTRA	0.2175	4750.4	50.00
DRB1_1302	112	SAQPSARLVLAAGPD	AQPSARLVL	0.2134	4970.1	50.00
DRB1_1302	538	EAKANVRRFVDDISF	EAKANVRRF	0.2120	5042.5	50.00
DRB1_1302	294	EQVLSRATERVRAGV	VLSRATERV	0.2118	5052.4	50.00
DRB1_1302	566	QRLLRDHYREIAEEI	LLRDHYREI	0.2105	5128.8	50.00
DRB1_1302	158	EVGAPSPLLRGGLAF	EVGAPSPLL	0.2092	5200.8	50.00
DRB1_1302	416	TAVGDNFVWAYQRSE	TAVGDNFVW	0.2087	5227.5	50.00
DRB1_1302	449	LSAELSPHVMGTDFG	LSAELSPHV	0.2086	5231.1	50.00
DRB1_1302	545	RFVDDISFVVSQSR	RFVDDISFV	0.2050	5443.5	50.00
DRB1_1302	517	LILGRMAYKEDKQNR	LILGRMAYK	0.2035	5527.3	50.00
DRB1_1302	461	DFGARLKALGRMESKP	GRLKALGRM	0.2024	5598.9	50.00
DRB1_1302	92	LPAARVGDDEATVVI	RGDDEATVV	0.2024	5598.9	50.00
DRB1_1302	600	TERDNRIRELQRQLG	RIRELQRQL	0.2017	5636.5	50.00
DRB1_1302	373	ADVHDHLRTRFRTRVT	VDHLRTRF	0.1995	5776.1	50.00
DRB1_1302	278	ELNEESNFPAIVKFL	EESNFPAIV	0.1987	5822.2	50.00
DRB1_1302	599	ETERDNRIRELQRQL	RIRELQRQL	0.1972	5918.9	50.00
DRB1_1302	452	ELSPHVMGTDFGRLK	SPHVMGTDF	0.1970	5935.6	50.00
DRB1_1302	45	IAKLNERGDLVQRLT	KLNERGDLV	0.1968	5945.3	50.00
DRB1_1302	46	AKLNERGDLVQRLTR	KLNERGDLV	0.1951	6055.7	50.00

DRB1_1302	277	KELNEESNFP AIVKF	EESNFP AIV	0.1950	6060.9	50.00
DRB1_1302	44	AIAKLN ERGDLVQRL	KLNERGDLV	0.1950	6063.8	50.00
DRB1_1302	145	RAPHAGGREVLRVEV	GREVLRVEV	0.1945	6092.8	50.00
DRB1_1302	340	ASDLERRKREAQQAV	RKREAQQAV	0.1935	6160.6	50.00
DRB1_1302	570	RDHYREIAEEITRSL	IAEEITRSL	0.1918	6278.8	50.00
DRB1_1302	268	RSHAVTLNDKELNEE	AVTLNDKEL	0.1908	6347.9	50.00
DRB1_1302	200	LVVSDTSQEFTEPEM	VVSDTSQEF	0.1905	6367.9	50.00
DRB1_1302	113	AQPSARLVLAAGPDG	AQPSARLV	0.1896	6425.7	50.00
DRB1_1302	12	RRKRARKWGDTV TQP	RKWGDTV TQ	0.1885	6505.8	50.00
DRB1_1302	120	VLAAGPDGTTAAVDI	GPDGTTAAV	0.1880	6538.4	50.00
DRB1_1302	118	RLVLAAGPDGTTAAV	GPDGTTAAV	0.1872	6597.2	50.00
DRB1_1302	374	DVDHDLRTRFRVTE	VDHDLRTRF	0.1869	6617.0	50.00
DRB1_1302	369	NDLTADV DHD L RTRF	VDHDLRTRF	0.1868	6625.0	50.00
DRB1_1302	372	TADV DHD L RTRFR TV	VDHDLRTRF	0.1868	6627.4	50.00
DRB1_1302	13	RKRARKWGDTV TQPD	RARKWGDTV	0.1867	6632.3	50.00
DRB1_1302	537	SEAKANVRRFVDDIS	EAKANVRRF	0.1862	6669.8	50.00
DRB1_1302	567	LLRDHYREIAEEIT	LLRDHYREI	0.1861	6674.8	50.00
DRB1_1302	175	TPGVGGLGQPHLSAT	LGQPHLSAT	0.1859	6693.1	50.00
DRB1_1302	370	DLTADV DHD L RTRFR	VDHDLRTRF	0.1855	6718.4	50.00
DRB1_1302	571	DHYREIAEEITRSLT	IAEEITRSL	0.1854	6726.3	50.00
DRB1_1302	572	HYREIAEEITRSLTE	IAEEITRSL	0.1838	6846.8	50.00
DRB1_1302	91	NLPAARVGDDEATVV	VGDDEATVV	0.1829	6914.4	50.00
DRB1_1302	568	LLRDHYREIAEEITR	LLRDHYREI	0.1823	6958.0	50.00
DRB1_1302	451	AELSPHVMGTD FGR L	SPHVMGTD F	0.1821	6973.3	50.00
DRB1_1302	320	AVSLGSELSV VNDPN	VSLGSELSV	0.1814	7021.7	50.00
DRB1_1302	453	LSPHVMGTD FGR LKA	SPHVMGTD F	0.1812	7040.0	50.00
DRB1_1302	93	PAARVGDDEATVVIT	VGDDEATVV	0.1806	7083.9	50.00
DRB1_1302	279	LNEESNFP AIVKFLS	EESNFP AIV	0.1800	7130.7	50.00
DRB1_1302	146	APHAGGREVLRVEVG	GREVLRVEV	0.1778	7305.3	50.00
DRB1_1302	454	SPHVMGTD FGR LKAL	VMGTD FGR L	0.1774	7338.4	50.00
DRB1_1302	94	AARVGDDEATVVITV	VGDDEATVV	0.1762	7426.7	50.00
DRB1_1302	573	YREIAEEITRSLTES	IAEEITRSL	0.1744	7575.8	50.00
DRB1_1302	590	ATIAAAQVAETERDN	IAAAQVAET	0.1738	7623.3	50.00
DRB1_1302	289	VKFLSEQVLSRATER	LSEQVLSRA	0.1736	7638.3	50.00
DRB1_1302	371	LTADV DHD L RTRFR T	VDHDLRTRF	0.1721	7767.0	50.00
DRB1_1302	375	VDHDLRTRFRVTE	VDHDLRTRF	0.1689	8042.8	50.00
DRB1_1302	450	SAELSPHVMGTD FGR	SPHVMGTD F	0.1688	8046.5	50.00
DRB1_1302	121	LAAGPDGTTAAVDIP	GPDGTTAAV	0.1674	8175.9	50.00
DRB1_1302	392	RQIDSCDPTAHWAEI	DSCDPTAHW	0.1671	8201.9	50.00
DRB1_1302	14	KRARKWGDTV TQPDD	RARKWGDTV	0.1657	8326.4	50.00
DRB1_1302	183	QPHLSATLGLLPEAD	HLSATLGLL	0.1646	8427.7	50.00
DRB1_1302	592	IAAAQVAETERDNRI	IAAAQVAET	0.1646	8428.0	50.00
DRB1_1302	185	HLSATLGLLPEADAV	GLLPEADAV	0.1641	8466.2	50.00
DRB1_1302	122	AAGPDGTTAAVDIPV	GPDGTTAAV	0.1640	8478.5	50.00
DRB1_1302	417	AVGDNFVWAYQRSEA	VGDNFVWAY	0.1637	8502.9	50.00
DRB1_1302	623	LAGLEPTLTPRASLG	LEPTLTPRA	0.1637	8510.9	50.00
DRB1_1302	119	LVLAAGPDGTTAAVD	GPDGTTAAV	0.1636	8517.0	50.00
DRB1_1302	276	DKELNEESNFP AIVK	EESNFP AIV	0.1634	8531.3	50.00
DRB1_1302	275	NDKELNEESNFP AIV	EESNFP AIV	0.1608	8777.1	50.00
DRB1_1302	624	AGLEPTLTPRASLGR	LEPTLTPRA	0.1607	8784.1	50.00
DRB1_1302	389	DAERQIDSCDPTAHW	DSCDPTAHW	0.1600	8856.8	50.00
DRB1_1302	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.1589	8956.2	50.00
DRB1_1302	328	SVVNDPNLRDR LASD	VVNDPNLRD	0.1582	9025.7	50.00
DRB1_1302	114	QPSARLVLAAGPDGT	ARLVLAAGP	0.1577	9077.2	50.00
DRB1_1302	625	GLEPTLTPRASLGRA	LEPTLTPRA	0.1573	9116.9	50.00
DRB1_1302	361	QVLDGDFNDLTADV	GFNDLTADV	0.1564	9201.3	50.00
DRB1_1302	394	IDSCDPTAHWAEIGN	DSCDPTAHW	0.1554	9305.0	50.00
DRB1_1302	393	QIDSCDPTAHWAEIG	DSCDPTAHW	0.1552	9322.1	50.00
DRB1_1302	390	AERQIDSCDPTAHWA	DSCDPTAHW	0.1517	9686.6	50.00
DRB1_1302	0	MVPAGLCAYRDLRRK	MVPAGLCAY	0.1513	9731.6	50.00
DRB1_1302	620	NDNLAGLEPTLTPRA	LEPTLTPRA	0.1507	9790.5	50.00
DRB1_1302	621	DNLVAGLEPTLTPRAS	LEPTLTPRA	0.1498	9888.6	50.00
DRB1_1302	595	AQAETERDNRIREL	AETERDNRI	0.1493	9945.4	50.00
DRB1_1302	546	FVDDISFVVSQSRD	FVDDISFVV	0.1490	9977.9	50.00
DRB1_1302	269	SHAVTLNDKELNEES	AVTLNDKEL	0.1489	9979.6	50.00
DRB1_1302	426	YQRSEALADDVARSF	LADDVARSF	0.1467	10224.9	50.00
DRB1_1302	184	PHLSATLGLLPEADA	PHLSATLGL	0.1447	10448.6	50.00
DRB1_1302	280	NEESNFP AIVKFLSE	EESNFP AIV	0.1443	10494.0	50.00
DRB1_1302	123	AGPDGTTAAVDIPVD	GPDGTTAAV	0.1442	10501.1	50.00
DRB1_1302	622	NLAGLEPTLTPRASL	LEPTLTPRA	0.1431	10633.6	50.00

DRB1_1302	117	ARLVLAAGPDGTTAA	AGPDGTTAA	0.1426	10691.4	50.00
DRB1_1302	281	EESNFPAIVKFLSEQ	EESNFPAIV	0.1418	10784.1	50.00
DRB1_1302	208	EFTEPEMWFVRQAHQ	MWFVRQAHQ	0.1405	10930.9	50.00
DRB1_1302	15	RARKWGDVTVTQPDDP	RARKWGDTV	0.1401	10975.7	50.00
DRB1_1302	173	IDTPGVGGLGQPHLS	IDTPGVGGL	0.1394	11068.5	50.00
DRB1_1302	391	ERQIDSCDPTAHWAE	DSCDPTAHW	0.1388	11137.8	50.00
DRB1_1302	115	PSARLVLAAGPDGTT	ARLVLAAGP	0.1388	11140.2	50.00
DRB1_1302	596	QVAETERDNRIRELQ	AETERDNR I	0.1385	11169.5	50.00
DRB1_1302	329	VVNDPNLRDLASDL	LRDLASDL	0.1370	11351.0	50.00
DRB1_1302	427	QRSEALADDVARSFA	LADDVARSF	0.1365	11421.8	50.00
DRB1_1302	270	PHATLNDKELNEESN	AVTLNDKEL	0.1364	11433.2	50.00
DRB1_1302	140	STDVRRAPHAGGREV	APHAGGREV	0.1357	11516.2	50.00
DRB1_1302	591	TIAAAQVAETERDNR	IAAAQVAET	0.1356	11523.0	50.00
DRB1_1302	141	TDVRRAPHAGGREVL	APHAGGREV	0.1351	11586.1	50.00
DRB1_1302	362	QVLGDGFNDLTADV	GFNDLTADV	0.1349	11622.4	50.00
DRB1_1302	455	PHVMGTDFGRLKALG	VMGTDFGRL	0.1348	11627.7	50.00
DRB1_1302	271	AVTLNDKELNEESNF	AVTLNDKEL	0.1347	11639.2	50.00
DRB1_1302	147	PHAGGREVLRVEVGA	GREVLRVEV	0.1337	11766.0	50.00
DRB1_1302	428	RSEALADDVARSFAD	LADDVARSF	0.1331	11842.0	50.00
DRB1_1302	395	DSCDPTAHWAEIGND	DSCDPTAHW	0.1320	11984.8	50.00
DRB1_1302	142	DVRRAPHAGGREVLR	APHAGGREV	0.1318	12012.2	50.00
DRB1_1302	456	HVMGTDFGRLKALGR	VMGTDFGRL	0.1314	12061.7	50.00
DRB1_1302	116	SARLVLAAGPDGTTA	ARLVLAAGP	0.1313	12073.2	50.00
DRB1_1302	143	VRRAPHAGGREVLRV	APHAGGREV	0.1308	12140.4	50.00
DRB1_1302	597	VAETERDNRIRELQR	AETERDNR I	0.1303	12207.3	50.00
DRB1_1302	598	AETERDNRIRELQRQ	AETERDNR I	0.1296	12305.9	50.00
DRB1_1302	363	VLGDGFNDLTADV	GFNDLTADV	0.1289	12395.8	50.00
DRB1_1302	124	GPDGTTAAVDIPVDD	GPDGTTAAV	0.1265	12719.9	50.00
DRB1_1302	273	TLNDKELNEESNFPA	LNEESNFPA	0.1256	12846.9	50.00
DRB1_1302	274	LNDKELNEESNFPAI	LNEESNFPA	0.1254	12877.6	50.00
DRB1_1302	547	VDDISFVSKQSRDR	ISFVSKQS	0.1240	13069.5	50.00
DRB1_1302	144	RRAPHAGGREVLRVE	APHAGGREV	0.1236	13127.4	50.00
DRB1_1302	398	DPTAHWAEIGNDVEN	WAEIGNDVE	0.1205	13569.6	50.00
DRB1_1302	171	AFIDTPGVGGLGQPH	IDTPGVGGL	0.1202	13618.2	50.00
DRB1_1302	397	CDPTAHWAEIGNDVE	WAEIGNDVE	0.1192	13761.5	50.00
DRB1_1302	425	ANQRSEALADDVARS	RSEALADDV	0.1172	14061.6	50.00
DRB1_1302	90	LNLPAARVGDDEATV	RGVGDDEATV	0.1167	14146.6	50.00
DRB1_1302	172	FIDTPGVGGLGQPHL	IDTPGVGGL	0.1149	14430.4	50.00
DRB1_1302	174	DTPGVGGLGQPHLSA	GGLGQPHLS	0.1105	15119.0	50.00
DRB1_1302	376	DHDLRTRFRFTVTEDA	LRTFRFTVT	0.1103	15159.3	50.00
DRB1_1302	364	LGDGFNDLTADV	GFNDLTADV	0.1097	15257.2	50.00
DRB1_1302	380	RTRFRFTVTEDAERQI	VTEDAERQI	0.1044	16163.8	50.00
DRB1_1302	619	VNDNLAGLEPTLT	LAGLEPTLT	0.1028	16435.5	50.00
DRB1_1302	594	AAQVAETERDNRIRE	AETERDNR I	0.1024	16504.2	50.00
DRB1_1302	365	GDGFNDLTADV	GFNDLTADV	0.1015	16673.1	50.00
DRB1_1302	128	TAAVDIPVDDISTD	IPVDDISTD	0.0999	16966.8	50.00
DRB1_1302	593	AAAQVAETERDNRIR	AETERDNR I	0.0992	17093.4	50.00
DRB1_1302	431	ALADDVARSFADAGL	VARSFADAG	0.0983	17258.9	50.00
DRB1_1302	129	TAAVDIPVDDISTDV	PVDDISTDV	0.0972	17459.2	50.00
DRB1_1302	125	PAGDTTAAVDIPVDDI	DGTTAAVDI	0.0970	17510.1	50.00
DRB1_1302	432	LADDVARSFADAGLD	VARSFADAG	0.0967	17555.6	50.00
DRB1_1302	331	NDPNLRDLASDLER	LRDLASDL	0.0963	17639.0	50.00
DRB1_1302	330	VNDPNLRDLASDLER	LRDLASDL	0.0957	17746.6	50.00
DRB1_1302	22	TVTQPDDPRRVGVIV	TQPDDPRRV	0.0956	17771.3	50.00
DRB1_1302	133	DIPVDDISTDVRRAP	PVDDISTDV	0.0953	17825.1	50.00
DRB1_1302	130	AAVDIPVDDISTDVR	PVDDISTDV	0.0953	17833.0	50.00
DRB1_1302	367	GFNDLTADV	GFNDLTADV	0.0952	17849.4	50.00
DRB1_1302	332	DPNLRDLASDLERR	LRDLASDL	0.0948	17935.7	50.00
DRB1_1302	430	EALADDVARSFADAG	LADDVARSF	0.0940	18081.5	50.00
DRB1_1302	23	VTQPDDPRRVGVIVE	TQPDDPRRV	0.0933	18213.6	50.00
DRB1_1302	437	ARSFADAGLDSVLSA	AGLDSVLSA	0.0933	18218.0	50.00
DRB1_1302	333	PNLRDLASDLERRK	LRDLASDL	0.0933	18220.1	50.00
DRB1_1302	126	DGTTAAVDIPVDDIS	RGTTAAVDI	0.0917	18544.1	50.00
DRB1_1302	399	PTAHWAEIGNDVENA	WAEIGNDVE	0.0905	18780.6	50.00
DRB1_1302	434	DDVARSFADAGLDSV	RSFADAGLD	0.0900	18891.0	50.00
DRB1_1302	230	VATKTDLYPRWREIV	DLYPRWREI	0.0894	19003.4	50.00
DRB1_1302	334	NLRDLASDLERRKR	LRDLASDL	0.0891	19064.5	50.00
DRB1_1302	131	AVDIPVDDISTDVRR	IPVDDISTD	0.0885	19185.8	50.00
DRB1_1302	204	DTSQEFTEPEMWFVR	FTEPEMWFV	0.0882	19254.2	50.00
DRB1_1302	366	DGFNDLTADV	GFNDLTADV	0.0880	19289.4	50.00

DRB1_1302	233	KTDLYPRWREIVNAN	DLYPRWREI	0.0879	19323.9	50.00
DRB1_1302	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.0874	19421.2	50.00
DRB1_1302	396	SCDPTAHWAEIIGNDV	DPTAHWAEI	0.0871	19491.5	50.00
DRB1_1302	134	IPVDDISTDVRRAPH	PVDDISTDV	0.0870	19499.5	50.00
DRB1_1302	377	HDLRTRFRFTVTEDAE	DLRTRFRFTV	0.0870	19506.9	50.00
DRB1_1302	381	TRFRFTVTEDAERQID	VTEDAERQI	0.0869	19523.6	50.00
DRB1_1302	436	VARSFADAGLDSVLS	ARSFADAGL	0.0861	19694.4	50.00
DRB1_1302	435	DVARSFADAGLDSVL	RSFADAGLD	0.0859	19739.4	50.00
DRB1_1302	139	ISTDVRRAPHAGGRE	VRRAPHAGG	0.0854	19842.6	50.00
DRB1_1302	206	SQEFTEPEMWFVRQA	FTEPEMWFV	0.0848	19969.2	50.00
DRB1_1302	433	ADDFVARSFADAGLDS	RSFADAGLD	0.0848	19981.1	50.00
DRB1_1302	335	LRDLASDLERRKRE	LRDLASDL	0.0840	20152.8	50.00
DRB1_1302	138	DISTDVRRAPHAGGR	VRRAPHAGG	0.0836	20226.0	50.00
DRB1_1302	429	SEALADDVARSFADA	LADDVARSF	0.0826	20454.2	50.00
DRB1_1302	231	ATKTDLYPRWREIVN	DLYPRWREI	0.0823	20518.1	50.00
DRB1_1302	378	DLRTRFRFTVTEDAER	LRTRFRFTV	0.0822	20556.1	50.00
DRB1_1302	127	GTTAAVDIPVDDIST	TTAAVDIPV	0.0817	20662.7	50.00
DRB1_1302	207	QEFTEPEMWFVRQAH	FTEPEMWFV	0.0811	20783.3	50.00
DRB1_1302	21	DTVTQPDDPRRVGVI	TQPDDPRRV	0.0809	20825.4	50.00
DRB1_1302	137	DDISTDVRRAPHAGG	VRRAPHAGG	0.0802	20987.1	50.00
DRB1_1302	16	ARKWGDVTVTQPDDPR	RKWGDVTVTQ	0.0790	21273.8	50.00
DRB1_1302	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.0789	21286.5	50.00
DRB1_1302	132	VPDIPVDDISTDVRR	PVDDISTDV	0.0786	21361.7	50.00
DRB1_1302	135	VDDISTDVRRAPHA	PVDDISTDV	0.0774	21633.4	50.00
DRB1_1302	18	KWGDVTVTQPDDPRRV	TQPDDPRRV	0.0770	21739.7	50.00
DRB1_1302	382	RFRTVTEDAERQIDS	VTEDAERQI	0.0769	21762.5	50.00
DRB1_1302	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.0765	21842.7	50.00
DRB1_1302	232	TKTDLYPRWREIVNA	DLYPRWREI	0.0746	22294.4	50.00
DRB1_1302	19	WGDTVTQPDDPRRVG	TQPDDPRRV	0.0712	23129.9	50.00
DRB1_1302	272	VTLNDKELNEESNFP	KELNEESNF	0.0708	23252.3	50.00
DRB1_1302	438	RSFADAGLDSVLSAE	AGLDSVLSA	0.0703	23367.8	50.00
DRB1_1302	569	LRDHYREIAEEITRS	HYREIAEEI	0.0677	24036.6	50.00
DRB1_1302	136	VDDISTDVRRAPHAG	VDDISTDVR	0.0671	24184.3	50.00
DRB1_1302	339	LASDLERRKREAQQA	RRKREAQQA	0.0660	24483.1	50.00
DRB1_1302	379	LRTRFRFTVTEDAERQ	TVTEDAERQ	0.0657	24568.5	50.00
DRB1_1302	20	GDTVTQPDDPRRVGV	TQPDDPRRV	0.0655	24617.2	50.00
DRB1_1302	3	AGLCAYRDLRKRAR	YRDLRKRAR	0.0645	24884.8	50.00
DRB1_1302	2	PAGLCAYRDLRKRAR	YRDLRKRAR	0.0643	24946.2	50.00
DRB1_1302	383	FRTVTEDAERQIDSC	VTEDAERQI	0.0637	25101.1	50.00
DRB1_1302	337	DRLASDLERRKREAQ	LERRKREAQ	0.0610	25848.3	50.00
DRB1_1302	17	RKWGDVTVTQPDDPRR	RKWGDVTVTQ	0.0588	26474.1	50.00
DRB1_1302	1	VPAGLCAYRDLRKR	GLCAYRDLR	0.0583	26621.7	50.00
DRB1_1302	368	FNDLTADVVDHDLRTR	LTADVVDHDL	0.0582	26628.9	50.00
DRB1_1302	384	RTVTEDAERQIDSCD	VTEDAERQI	0.0559	27322.1	50.00
DRB1_1302	386	VTEDAERQIDSCDPT	VTEDAERQI	0.0551	27535.8	50.00
DRB1_1302	336	RDRLASDLERRKREA	LASDLERRK	0.0532	28123.5	50.00
DRB1_1302	4	GLCAYRDLRKRARK	YRDLRKRAR	0.0521	28447.3	50.00
DRB1_1302	385	TVTEDAERQIDSCDP	VTEDAERQI	0.0503	29022.1	50.00
DRB1_1302	338	RLASDLERRKREAQQ	ERRKREAQQ	0.0502	29057.0	50.00
DRB1_1302	202	VSDTSQEFTEPEMWF	EFTPEMWFV	0.0468	30135.1	50.00
DRB1_1302	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.0409	32105.9	50.00

Allele: DRB1_1302. Number of high binders 39. Number of weak binders 101. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB1_1501	286	PAIVKFLSEQVLSRA	IVKFLSEQV	0.7813	10.7	SB	0.30
DRB1_1501	479	GHKMIIGMRGSYGGV	MIIGMRGSY	0.7749	11.4	SB	0.40
DRB1_1501	287	AIVKFLSEQVLSRAT	IVKFLSEQV	0.7744	11.5	SB	0.40
DRB1_1501	285	FPAIVKFLSEQVLSR	IVKFLSEQV	0.7720	11.8	SB	0.40
DRB1_1501	514	GAGLILGRMAYKEDK	LILGRMAYK	0.7717	11.8	SB	0.40
DRB1_1501	480	HKMIIGMRGSYGGVV	MIIGMRGSY	0.7713	11.9	SB	0.40
DRB1_1501	481	KMIIGMRGSYGGVVM	MIIGMRGSY	0.7685	12.2	SB	0.40
DRB1_1501	515	AGLILGRMAYKEDKQ	LILGRMAYK	0.7653	12.7	SB	0.40
DRB1_1501	513	VGAGLILGRMAYKED	LILGRMAYK	0.7636	12.9	SB	0.40
DRB1_1501	478	RGHKMIIGMRGSYGG	MIIGMRGSY	0.7598	13.5	SB	0.80
DRB1_1501	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.7550	14.2	SB	0.80

DRB1_1501	261	IAVSSLLRSHAVTLN	LLRSHAVTL	0.7534	14.4	SB	0.80
DRB1_1501	482	MIIGMRGSYGGVMI	MIIGMRGSY	0.7520	14.6	SB	0.80
DRB1_1501	284	NFPAIVKFLSEQVLS	AIVKFLSEQ	0.7491	15.1	SB	0.80
DRB1_1501	512	SFVAGLILGRMAYKE	LILGRMAYK	0.7456	15.7	SB	0.80
DRB1_1501	260	I1AVSSLLRSHAVTL	SLLRSHAVT	0.7434	16.1	SB	0.80
DRB1_1501	477	RRGHKMIIGMRGSYG	MIIGMRGSY	0.7409	16.5	SB	0.80
DRB1_1501	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.7359	17.4	SB	0.80
DRB1_1501	52	GDLVQRLTRARQRIT	LVQRLTRAR	0.7320	18.2	SB	0.80
DRB1_1501	283	SNFPAIVKFLSEQVL	AIVKFLSEQ	0.7284	18.9	SB	1.00
DRB1_1501	516	GLILGRMAYKEDKQN	LILGRMAYK	0.7266	19.3	SB	1.00
DRB1_1501	53	ERGLRMLTRARQRITD	LVQRLTRAR	0.7175	21.2	SB	2.00
DRB1_1501	50	ERGDVQRLTRARQR	LVQRLTRAR	0.7167	21.4	SB	2.00
DRB1_1501	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.6918	28.1	SB	2.00
DRB1_1501	476	LRRGHKMIIGMRGSY	MIIGMRGSY	0.6836	30.7	SB	2.00
DRB1_1501	49	NERGDVQRLTRARQ	LVQRLTRAR	0.6814	31.4	SB	2.00
DRB1_1501	511	LSVGAGLILGRMAYK	LILGRMAYK	0.6683	36.2	SB	4.00
DRB1_1501	282	ESNFPAIVKFLSEQV	AIVKFLSEQ	0.6651	37.5	SB	4.00
DRB1_1501	492	GVVMIGMLSSVVGLG	MIGMLSSVV	0.6568	41.0	SB	4.00
DRB1_1501	491	GGVVMIGMLSSVVGL	MIGMLSSVV	0.6513	43.5	SB	4.00
DRB1_1501	54	LVQRLTRARQRITDP	LVQRLTRAR	0.6431	47.6	SB	4.00
DRB1_1501	517	LILGRMAYKEDKQNR	LILGRMAYK	0.6369	50.9	WB	4.00
DRB1_1501	259	PI1AVSSLLRSHAVT	AVSSLLRSH	0.6348	52.0	WB	4.00
DRB1_1501	560	DRLKMIQRLLRDHYR	MIQRLLRDH	0.6335	52.7	WB	4.00
DRB1_1501	493	VVMIGMLSSVVGLGL	MIGMLSSVV	0.6271	56.5	WB	8.00
DRB1_1501	264	SLLRSHAVTLNDKE	LLRSHAVTL	0.6251	57.7	WB	8.00
DRB1_1501	103	TVVITVVSYSQAQPSA	TVVSYSQAP	0.6247	58.0	WB	8.00
DRB1_1501	475	PLRRGHKMIIGMRGS	KMIIGMRGS	0.6216	60.0	WB	8.00
DRB1_1501	490	YGGVVMIGMLSSVVG	MIGMLSSVV	0.6203	60.8	WB	8.00
DRB1_1501	561	RLKMIQRLLRDHYRE	MIQRLLRDH	0.6197	61.2	WB	8.00
DRB1_1501	559	DRNLKMIQRLLRDHY	MIQRLLRDH	0.6194	61.4	WB	8.00
DRB1_1501	48	LNERGDVQRLTRAR	LVQRLTRAR	0.6169	63.1	WB	8.00
DRB1_1501	104	VVITVVSYSQAQPSAR	TVVSYSQAP	0.6161	63.7	WB	8.00
DRB1_1501	494	VMIGMLSSVVGLGLF	MIGMLSSVV	0.6150	64.4	WB	8.00
DRB1_1501	501	SVVGLGLFNPLSVGA	GLGLFNPLS	0.6145	64.8	WB	8.00
DRB1_1501	164	PLLRGGLAFIDTPGV	GGLAFIDTP	0.6114	67.0	WB	8.00
DRB1_1501	165	LLRGGLAFIDTPGVG	GGLAFIDTP	0.6091	68.7	WB	8.00
DRB1_1501	166	LRGGLAFIDTPGVGG	GGLAFIDTPG	0.6069	70.3	WB	8.00
DRB1_1501	464	RLKALGRMESKPLRR	ALGRMESKP	0.6056	71.3	WB	8.00
DRB1_1501	463	GRLKALGRMESKPLR	ALGRMESKP	0.6030	73.4	WB	8.00
DRB1_1501	562	LKMIQRLLRDHYREI	MIQRLLRDH	0.6016	74.5	WB	8.00
DRB1_1501	288	IVKFLSEQVLSRATE	IVKFLSEQV	0.6004	75.5	WB	8.00
DRB1_1501	102	ATVVITVVSYSQAQPS	TVVSYSQAP	0.5999	75.9	WB	8.00
DRB1_1501	105	VITVVVSYSQAQPSARL	TVVSYSQAP	0.5993	76.3	WB	8.00
DRB1_1501	489	SYGGVVMIGMLSSVV	MIGMLSSVV	0.5893	85.1	WB	8.00
DRB1_1501	167	RGGLAFIDTPGVGGL	GLAFIDTPG	0.5889	85.5	WB	8.00
DRB1_1501	502	VVGLGLFNPLSVGAG	GLGLFNPLS	0.5885	85.8	WB	8.00
DRB1_1501	461	DFGRLKALGRMESKP	ALGRMESKP	0.5856	88.6	WB	8.00
DRB1_1501	106	ITVVSYSQAQPSARLV	TVVSYSQAP	0.5840	90.1	WB	8.00
DRB1_1501	558	SRDRLKMIQRLLRDH	MIQRLLRDH	0.5830	91.1	WB	8.00
DRB1_1501	500	SVVGLGLFNPLSVG	GLGLFNPLS	0.5830	91.1	WB	8.00
DRB1_1501	563	KMIQRLLRDHYREIA	MIQRLLRDH	0.5822	91.9	WB	8.00
DRB1_1501	462	FGRLKALGRMESKPL	ALGRMESKP	0.5817	92.4	WB	8.00
DRB1_1501	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.5735	101.0	WB	8.00
DRB1_1501	606	IRELQRQLGILSQVN	QLGILSQVN	0.5671	108.1	WB	16.00
DRB1_1501	503	VGLGLFNPLSVGAGL	GLGLFNPLS	0.5652	110.5	WB	16.00
DRB1_1501	495	MIGMLSSVVGLGLFN	MIGMLSSVV	0.5638	112.1	WB	16.00
DRB1_1501	460	TDFGRLKALGRMESK	DFGRLKALG	0.5628	113.3	WB	16.00
DRB1_1501	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.5627	113.4	WB	16.00
DRB1_1501	529	QNRLLRVRSEAKANV	LLRVRSEAK	0.5604	116.4	WB	16.00
DRB1_1501	163	SPLLRGGLAFIDTPG	PLLRGGLAF	0.5587	118.5	WB	16.00
DRB1_1501	465	LKALGRMESKPLRRG	ALGRMESKP	0.5549	123.5	WB	16.00
DRB1_1501	168	GGLAFIDTPGVGGGLG	GLAFIDTPG	0.5540	124.7	WB	16.00
DRB1_1501	474	KPLRRGHKMIIGMRG	LRRGHKMI	0.5524	126.9	WB	16.00
DRB1_1501	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.5492	131.3	WB	16.00
DRB1_1501	607	RELQRQLGILSQVND	QLGILSQVN	0.5462	135.7	WB	16.00
DRB1_1501	83	SQLLNSLLNLPAARV	QLLNSLLNL	0.5443	138.4	WB	16.00
DRB1_1501	4	GLCAYRDLRRKRARK	GLCAYRDLR	0.5436	139.6	WB	16.00
DRB1_1501	101	EATVVITVVSYSQAQP	TVVSYSQAP	0.5416	142.5	WB	16.00
DRB1_1501	459	GTDFGRLKALGRMES	DFGRLKALG	0.5411	143.4	WB	16.00
DRB1_1501	3	AGLCAYRDLRRKRAR	GLCAYRDLR	0.5409	143.6	WB	16.00

DRB1_1501	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.5393	146.1	WB	16.00
DRB1_1501	473	SKPLRRGHKMIIGMR	PLRRGHKMI	0.5382	147.9	WB	16.00
DRB1_1501	466	KALGRMESKPLRRGH	ALGRMESKP	0.5376	148.9	WB	16.00
DRB1_1501	2	PAGLCAYRDLRRKRA	GLCAYRDLR	0.5374	149.2	WB	16.00
DRB1_1501	458	MGTDFGRLKALGRME	DFGRLKALG	0.5344	154.1	WB	16.00
DRB1_1501	82	KSQLLNSLLNLPAA	QLLNSLLNL	0.5338	155.1	WB	16.00
DRB1_1501	499	LSSVVGLGLFNPLSV	GLGLFNPLS	0.5325	157.2	WB	16.00
DRB1_1501	504	GLGLFNPLSVGAGLI	LFNPLSVGA	0.5269	167.1	WB	16.00
DRB1_1501	80	QGKSQLLNSLLNLP	KSQLLNSLL	0.5243	171.9	WB	16.00
DRB1_1501	605	ELRQLRQLGILSQV	ELRQLGIL	0.5235	173.4	WB	16.00
DRB1_1501	472	BIRELQRGHKMIIGM	LRRGHKMI	0.5231	174.1	WB	16.00
DRB1_1501	531	RLLRVRSEAKANVRR	LLRVRSEAK	0.5220	176.3	WB	16.00
DRB1_1501	527	DKQNRLLRVRSEAKA	RLLRVRSEA	0.5181	183.8	WB	16.00
DRB1_1501	1	VPAGLCAYRDLRRKR	GLCAYRDLR	0.5160	188.1	WB	16.00
DRB1_1501	79	KQKSQLLNSLLNLP	LLNSLLNLP	0.5156	188.8	WB	16.00
DRB1_1501	81	GKSQLLNSLLNLPAA	QLLNSLLNL	0.5153	189.4	WB	16.00
DRB1_1501	258	MPITIAVSSLLRSHAV	AVSSLLRSH	0.5146	190.9	WB	16.00
DRB1_1501	84	QLLNSLLNLPAAARVG	QLLNSLLNL	0.5108	198.9	WB	16.00
DRB1_1501	457	VMGTDFGRLKALGRM	DFGRLKALG	0.5094	202.0	WB	16.00
DRB1_1501	76	GLLKQKSQLLNSLL	LLKQKSQL	0.5090	202.9	WB	16.00
DRB1_1501	608	ELQRQLGILSQVNDN	QLGILSQVN	0.5060	209.6	WB	16.00
DRB1_1501	41	HTIAIAKLNERGDLV	AIAKLNERG	0.5043	213.4	WB	16.00
DRB1_1501	604	NIRELQRQLGILSQ	ELQRQLGIL	0.5036	215.2	WB	16.00
DRB1_1501	162	PSPLLRGGLAFIDTP	PLLRGGLAF	0.5028	216.9	WB	16.00
DRB1_1501	107	TVVSYSAQPSARLVL	TVVSYSAQP	0.5016	219.8	WB	16.00
DRB1_1501	75	AGLLKQKSQLLNSL	LLKQKSQL	0.5003	222.9	WB	16.00
DRB1_1501	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.4999	223.9	WB	16.00
DRB1_1501	456	HVMGTDFGRLKALGR	DFGRLKALG	0.4973	230.2	WB	16.00
DRB1_1501	374	DVDHDLRTRFRFTVTE	LRTRFRFTV	0.4973	230.2	WB	16.00
DRB1_1501	43	IAIAKLNERGDLVQR	IAIAKLNER	0.4935	239.8	WB	16.00
DRB1_1501	0	MVPAGLCAYRDLRRK	GLCAYRDLR	0.4928	241.8	WB	16.00
DRB1_1501	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.4925	242.4	WB	16.00
DRB1_1501	152	REVLRVVEVGAPSPLL	VLRVEVGAP	0.4914	245.4	WB	16.00
DRB1_1501	609	LQRQLGILSQVNDNL	QLGILSQVN	0.4909	246.7	WB	16.00
DRB1_1501	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.4887	252.6	WB	32.00
DRB1_1501	151	GREVLRVVEVGAPSP	VLRVEVGAP	0.4882	254.1	WB	32.00
DRB1_1501	150	GGREVLRVVEVGAPSP	VLRVEVGAP	0.4881	254.3	WB	32.00
DRB1_1501	564	MIQRLLRDHYREIAE	MIQRLLRDH	0.4871	257.0	WB	32.00
DRB1_1501	257	PMPITIAVSSLLRSHA	AVSSLLRSH	0.4861	259.8	WB	32.00
DRB1_1501	603	DNIRELQRQLGILS	ELQRQLGIL	0.4851	262.7	WB	32.00
DRB1_1501	74	IAGLLKQKSQLLNS	LLKQKSQL	0.4839	266.2	WB	32.00
DRB1_1501	247	NAAHLQRARVPMPII	HLQRARVPM	0.4831	268.6	WB	32.00
DRB1_1501	77	LLKQKSQLLNSLLN	LLKQKSQL	0.4827	269.7	WB	32.00
DRB1_1501	375	VHDHLRTRFRFTVTE	DLRTRFRFTV	0.4812	274.0	WB	32.00
DRB1_1501	417	AVGDNFVWAYQRSEA	AVGDNFVWA	0.4805	276.3	WB	32.00
DRB1_1501	610	QRQLGILSQVNDNLA	QLGILSQVN	0.4793	279.7	WB	32.00
DRB1_1501	149	AGGREVLRVVEVGAPS	VLRVEVGAP	0.4759	290.3	WB	32.00
DRB1_1501	505	LGLFNPLSVGAGLIL	LFNPLSVGA	0.4749	293.4	WB	32.00
DRB1_1501	73	VIAGLLKQKSQLLN	LLKQKSQL	0.4739	296.7	WB	32.00
DRB1_1501	40	DPTIAIAKLNERGDL	AIAKLNERG	0.4736	297.6	WB	32.00
DRB1_1501	256	VPMPIITIAVSSLLRSH	AVSSLLRSH	0.4720	302.7	WB	32.00
DRB1_1501	418	VGDNFVWAYQRSEAL	VGDNFVWAY	0.4717	303.9	WB	32.00
DRB1_1501	376	DHDLRTRFRFTVTE	LRTRFRFTV	0.4708	306.6	WB	32.00
DRB1_1501	72	VVIAGLLKQKSQLL	LLKQKSQL	0.4695	311.0	WB	32.00
DRB1_1501	281	EESNFPAIVKFLSEQ	AIVKFLSEQ	0.4678	316.9	WB	32.00
DRB1_1501	5	LCAYRDLRRKRARKW	DLRRKRARK	0.4674	318.2	WB	32.00
DRB1_1501	160	GAPSPLLRGGLAFID	PLLRGGLAF	0.4668	320.4	WB	32.00
DRB1_1501	161	APSPLLRGGLAFIDT	PLLRGGLAF	0.4648	327.2	WB	32.00
DRB1_1501	153	EVLRVVEVGAPSPLLR	VLRVEVGAP	0.4644	328.6	WB	32.00
DRB1_1501	246	ANAHLQRARVPMPI	HLQRARVPM	0.4643	329.2	WB	32.00
DRB1_1501	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.4629	334.1	WB	32.00
DRB1_1501	307	GDVLGEIRSATEQLAV	VLGEIRSAT	0.4616	338.7	WB	32.00
DRB1_1501	602	RNIRELQRQLGIL	ELQRQLGIL	0.4613	340.0	WB	32.00
DRB1_1501	78	LKQKSQLLNSLLNL	KSQLLNSLL	0.4611	340.8	WB	32.00
DRB1_1501	305	RAGVLGEIRSATEQL	VLGEIRSAT	0.4598	345.3	WB	32.00
DRB1_1501	611	RQLGILSQVNDNLAG	QLGILSQVN	0.4593	347.4	WB	32.00
DRB1_1501	159	VGAPSPLLRGGLAFI	PLLRGGLAF	0.4584	350.8	WB	32.00
DRB1_1501	373	ADVHDHLRTRFRFTV	DLRTRFRFTV	0.4560	360.1	WB	32.00
DRB1_1501	498	MLSSVVGLGLFNPLS	GLGLFNPLS	0.4550	363.8	WB	32.00
DRB1_1501	377	HDLRTRFRFTVTE	LRTRFRFTV	0.4543	366.6	WB	32.00

DRB1_1501	496	IGMLSSVVGLGLFNP	IGMLSSVVG	0.4535	370.0	WB	32.00
DRB1_1501	471	MESKPLRRGHKMIIG	LRRGHKMI I	0.4512	379.2	WB	32.00
DRB1_1501	419	GDNFVWAYQRSEALA	NFVWAYQRS	0.4510	380.1	WB	32.00
DRB1_1501	6	CAAYDLRRKRARKWG	DLRRKRARK	0.4502	383.3	WB	32.00
DRB1_1501	248	AAHLQRARVPMP IIA	HLQRARVPM	0.4498	385.1	WB	32.00
DRB1_1501	420	DNFVWAYQRSEALAD	NFVWAYQRS	0.4474	395.1	WB	32.00
DRB1_1501	7	AYRDLRRKRARKWGD	DLRRKRARK	0.4470	396.7	WB	32.00
DRB1_1501	100	DEATVVITVVSYSQA	VVITVVSYS	0.4462	400.1	WB	32.00
DRB1_1501	290	KFLSEQVLSRATERV	VLSRATERV	0.4457	402.5	WB	32.00
DRB1_1501	148	HAGAREVLRVEVGAP	HLRVEVGAP	0.4448	406.3	WB	32.00
DRB1_1501	245	NANAAHLQRARVPM	VLQRARVPM	0.4445	407.5	WB	32.00
DRB1_1501	242	EIVNANAHLQRARV	EIVNANA AH	0.4427	415.8	WB	32.00
DRB1_1501	85	LLNSLLNLPAARVGD	SLLNLPAAR	0.4400	428.2	WB	32.00
DRB1_1501	506	GLFNPLSVGAGLILG	LFNPLSVGA	0.4366	444.0	WB	32.00
DRB1_1501	467	ALGRMESKPLRRGHK	ALGRMESKP	0.4361	446.4	WB	32.00
DRB1_1501	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.4334	459.6	WB	32.00
DRB1_1501	39	IDHTIAIAKLNERGD	AIAKLNERG	0.4325	464.2	WB	32.00
DRB1_1501	71	RVVIAGLLKQKSQL	LLKQKSQL	0.4324	464.6	WB	32.00
DRB1_1501	497	GMLSSVVGLGLFNPL	SVVGLGLFN	0.4315	469.2	WB	32.00
DRB1_1501	421	NFVWAYQRSEALADD	FVWAYQRSE	0.4302	476.0	WB	32.00
DRB1_1501	239	RWREIVNANAHLQR	EIVNANA AH	0.4295	479.2	WB	32.00
DRB1_1501	556	KQSRDLKMIQRLLR	RLKMIQRLL	0.4264	495.8	WB	32.00
DRB1_1501	295	QVLSRATERVRAGVL	QVLSRATER	0.4256	500.0	WB	32.00
DRB1_1501	238	PRWREIVNANAHLQ	EIVNANA AH	0.4242	507.6		32.00
DRB1_1501	244	VNANAHLQRARVPM	HLQRARVPM	0.4238	510.2		32.00
DRB1_1501	488	GSYGGVVMIGMLSSV	VMIGMLSSV	0.4214	523.5		32.00
DRB1_1501	416	TAVGDNFVWAYQRSE	AVGDNFVWA	0.4208	526.8		32.00
DRB1_1501	378	DLRTRFRFTVTEAER	LRTRFRFTV	0.4201	531.0		32.00
DRB1_1501	291	FLSEQVLSRATERVR	VLSRATERV	0.4199	531.7		32.00
DRB1_1501	308	VLGEIRSATEQLAVS	VLGEIRSAT	0.4187	539.0		32.00
DRB1_1501	293	SEQVLSRATERVRAG	QVLSRATER	0.4174	546.3		32.00
DRB1_1501	255	RVPMP IIAVSSLLRS	IIAVSSLLR	0.4170	549.0		32.00
DRB1_1501	303	RVRAGVLGEIRSATE	VLGEIRSAT	0.4168	549.8		32.00
DRB1_1501	304	VRAGVLGEIRSATEQ	VLGEIRSAT	0.4129	573.8		32.00
DRB1_1501	292	LSEQVLSRATERVRA	QVLSRATER	0.4117	581.6		32.00
DRB1_1501	470	YRESKPLRRGHKMI I	LRRGHKMI I	0.4100	591.8		32.00
DRB1_1501	237	PRWREIVNANAHL	EIVNANA AH	0.4086	600.9		32.00
DRB1_1501	8	YRDLRRKRARKWGD	DLRRKRARK	0.4085	602.1		32.00
DRB1_1501	241	REIVNANAHLQRAR	EIVNANA AH	0.4075	608.2		32.00
DRB1_1501	9	RDLLRRKRARKWGDTV	DLRRKRARK	0.4061	617.9		32.00
DRB1_1501	240	WREIVNANAHLQRA	EIVNANA AH	0.4042	630.2		32.00
DRB1_1501	455	PHVMGTDGRLKALG	DFGRLKALG	0.4042	630.4		32.00
DRB1_1501	69	QVRVVIAGLLKQKGS	QVRVVIAGL	0.4042	630.5		32.00
DRB1_1501	510	PLSVGAGLILGRMAY	GLIILGRMAY	0.4031	637.6		32.00
DRB1_1501	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.4014	650.1		32.00
DRB1_1501	249	AHLQRARVPMP IIAV	HLQRARVPM	0.4004	656.5		32.00
DRB1_1501	33	GVIVELIDHTIAIAK	ELIDHTIAI	0.3973	679.5		32.00
DRB1_1501	254	ARVPMP IIAVSSLLR	IIAVSSLLR	0.3971	680.9		32.00
DRB1_1501	68	QVRVVIAGLLKQKGS	QVRVVIAGL	0.3950	696.7		32.00
DRB1_1501	565	IQRLLRDHYREIAEE	LLRDHYREI	0.3945	700.5		32.00
DRB1_1501	211	EPERMWFVRQAHQICP	EMWFVRQAH	0.3938	705.4		32.00
DRB1_1501	289	VKFLSEQVLSRATER	KFLSEQVLS	0.3936	707.4		32.00
DRB1_1501	210	TEPEMWFVRQAHQIC	EMWFVRQAH	0.3930	711.6		32.00
DRB1_1501	621	DNLAGLEPTLTPRAS	GLEPTLTPR	0.3925	715.4		32.00
DRB1_1501	622	NLQGLEPTLTPRASL	GLEPTLTPR	0.3922	717.7		32.00
DRB1_1501	294	EQVLSRATERVRAGV	VLSRATERV	0.3920	719.7		32.00
DRB1_1501	38	LIDHTIAIAKLNERG	AIAKLNERG	0.3918	720.7		32.00
DRB1_1501	372	TADVHDLRTRFRFTV	VDHDLRTRF	0.3908	729.1		32.00
DRB1_1501	34	VIVELIDHTIAIAKL	ELIDHTIAI	0.3898	736.8		32.00
DRB1_1501	67	DPQVRVVIAGLLKQG	QVRVVIAGL	0.3892	741.5		32.00
DRB1_1501	620	NDNLAGLEPTLTPR	LAGLEPTLT	0.3880	751.3		32.00
DRB1_1501	250	HLQRARVPMP IIAVS	HLQRARVPM	0.3875	755.6		32.00
DRB1_1501	415	ATAVGDNFVWAYQRS	AVGDNFVWA	0.3866	762.6		32.00
DRB1_1501	70	VRVVIAGLLKQKGSQ	VIAGLLKQG	0.3850	775.6		50.00
DRB1_1501	236	LYPRWREIVNANA AH	EIVNANA AH	0.3834	789.2		50.00
DRB1_1501	66	TDPQVRVVIAGLLKQ	QVRVVIAGL	0.3833	790.4		50.00
DRB1_1501	10	DLRRKRARKWGDTV	DLRRKRARK	0.3819	802.7		50.00
DRB1_1501	32	VGIVELIDHTIAIA	ELIDHTIAI	0.3807	813.4		50.00
DRB1_1501	212	PEMWFVRQAHQICPV	EMWFVRQAH	0.3794	824.1		50.00
DRB1_1501	317	EQLAVSLGSELSVVN	LAVSLGSEL	0.3773	843.1		50.00

DRB1_1501	302	ERVRAGVLGEIRSAT	VLGEIRSAT	0.3770	846.2	50.00
DRB1_1501	154	VLRVEVGAPSPLLRG	VLRVEVGAP	0.3767	848.9	50.00
DRB1_1501	548	DDISFVVSQSRDRL	DISFVVSQ	0.3767	849.0	50.00
DRB1_1501	158	EVGAPSPLLRGGLAF	PLLRGGLAF	0.3765	851.1	50.00
DRB1_1501	484	IGMRGSYGGVVMIGM	GMRGSYGGV	0.3755	860.0	50.00
DRB1_1501	296	VLSRATERVRAGVLG	VLSRATERV	0.3718	895.6	50.00
DRB1_1501	623	LAGLEPTLTPRASLG	GLEPTLTPR	0.3699	913.5	50.00
DRB1_1501	195	EADAVLVVSDTSQEF	AVLVVSDTS	0.3684	928.2	50.00
DRB1_1501	299	RATERVRAGVLGEIR	ATERVRAGV	0.3684	928.6	50.00
DRB1_1501	422	FVWAYQRSEALADDV	FVWAYQRSE	0.3678	934.8	50.00
DRB1_1501	612	QLGILSQVNDNLAGL	QLGILSQVN	0.3677	935.5	50.00
DRB1_1501	298	SRATERVRAGVLGEI	ATERVRAGV	0.3650	963.5	50.00
DRB1_1501	55	VQRLTRARQRITDPQ	LTRARQRIT	0.3644	969.8	50.00
DRB1_1501	352	QAVQQTALWQQVVLGD	QAVQQTALW	0.3644	970.1	50.00
DRB1_1501	243	IVNANAHLQRARVP	IVNANAHL	0.3637	977.4	50.00
DRB1_1501	196	ADAVLVVSDTSQEFT	AVLVVSDTS	0.3632	982.8	50.00
DRB1_1501	297	LSRATERVRAGVLGE	ATERVRAGV	0.3628	987.1	50.00
DRB1_1501	538	EAKANVRRFVDDISF	NVRRFVDDI	0.3623	991.7	50.00
DRB1_1501	86	LNSLLNLPAARVGDD	SLLNLPAAAR	0.3623	992.1	50.00
DRB1_1501	253	RARVPMPIIAVSSLL	PMPPIAVSS	0.3621	993.8	50.00
DRB1_1501	414	IATAVGDNFVWAYQR	AVGDNFVWA	0.3617	998.2	50.00
DRB1_1501	539	AKANVRRFVDDISFV	NVRRFVDDI	0.3613	1002.6	50.00
DRB1_1501	31	RVGNIVAGLIDHTIAI	ELIDHTIAI	0.3612	1004.4	50.00
DRB1_1501	619	VNDNLVAGLEPTLTTPR	LAGLEPTLT	0.3606	1010.6	50.00
DRB1_1501	35	IVELIDHTIAIAKLN	ELIDHTIAI	0.3605	1012.0	50.00
DRB1_1501	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.3593	1024.9	50.00
DRB1_1501	446	DSVLSAELSPHVMGT	VLSAELSPH	0.3591	1026.6	50.00
DRB1_1501	209	FTEPEMWFVRQAHQI	EMWFVRQAH	0.3583	1035.8	50.00
DRB1_1501	318	QLAVSLGSELSVVND	LAVSLGSEL	0.3582	1037.2	50.00
DRB1_1501	555	SKQSRDRLKMIQRLL	RLKMIQRLL	0.3581	1038.4	50.00
DRB1_1501	549	DISFVVSQSRDRLK	DISFVVSQ	0.3573	1047.8	50.00
DRB1_1501	507	LFNPLSVGAGLILGR	LFNPLSVGA	0.3555	1068.2	50.00
DRB1_1501	540	KANVRRFVDDISFVV	NVRRFVDDI	0.3543	1081.3	50.00
DRB1_1501	213	EMWFVRQAHQICPVG	EMWFVRQAH	0.3539	1086.2	50.00
DRB1_1501	547	VDDISFVVSQSRDR	DISFVVSQ	0.3524	1104.2	50.00
DRB1_1501	518	ILGRMAYKEDKQNRL	ILGRMAYKE	0.3520	1109.6	50.00
DRB1_1501	233	KDGLPRWREIVNAN	LYPRWREIV	0.3518	1111.5	50.00
DRB1_1501	44	AIAKLNERGDLVQRL	AIAKLNERG	0.3514	1116.6	50.00
DRB1_1501	447	SVLSAELSPHVMGTD	VLSAELSPH	0.3485	1151.9	50.00
DRB1_1501	169	GLAFIDTPGVGGLGQ	GLAFIDTPG	0.3478	1160.3	50.00
DRB1_1501	300	ATERVRAGVLGEIRS	ATERVRAGV	0.3475	1163.8	50.00
DRB1_1501	485	GMRGSYGGVVMIGML	GMRGSYGGV	0.3471	1169.7	50.00
DRB1_1501	197	DAVLVVSDTSQEFTE	AVLVVSDTS	0.3468	1173.5	50.00
DRB1_1501	542	NVRRFVDDISFVVSKE	NVRRFVDDI	0.3465	1177.5	50.00
DRB1_1501	194	PEADAVLVVSDTSQE	AVLVVSDTS	0.3464	1178.6	50.00
DRB1_1501	624	AGLEPTLTPRASLGR	GLEPTLTPR	0.3463	1178.9	50.00
DRB1_1501	37	ELIDHTIAIAKLNER	ELIDHTIAI	0.3456	1188.8	50.00
DRB1_1501	581	TRSLTESLQATIAAAA	LTESLQATI	0.3432	1219.6	50.00
DRB1_1501	99	DDEATVVITVVSYSYA	VVITVVSYS	0.3427	1226.2	50.00
DRB1_1501	541	ANVRRFVDDISFVVS	NVRRFVDDI	0.3425	1228.5	50.00
DRB1_1501	147	PHAGGREVLRVEVGA	EVLRVEVGA	0.3422	1232.5	50.00
DRB1_1501	65	ITDPQVRVVIAGLLK	QVRVVIAGL	0.3418	1238.1	50.00
DRB1_1501	525	KEDKQNRLLRVSEA	RLLRVSEA	0.3415	1242.8	50.00
DRB1_1501	625	GLEPTLTTPRASLGRA	TLTPRASLG	0.3410	1248.7	50.00
DRB1_1501	582	RSLTESLQATIAAAAQ	LTESLQATI	0.3405	1255.4	50.00
DRB1_1501	251	LQRARVPMPIIAVSS	PMPPIAVSS	0.3402	1260.6	50.00
DRB1_1501	87	LNSLLNLPAARVGDE	SLLNLPAAAR	0.3395	1269.3	50.00
DRB1_1501	351	QQAVQQTALWQQVVLG	AVQQTALWQ	0.3395	1270.1	50.00
DRB1_1501	413	AIATAVGDNFVWAYQ	AVGDNFVWA	0.3391	1275.8	50.00
DRB1_1501	234	TDLYPRWREIVNANA	LYPRWREIV	0.3384	1284.3	50.00
DRB1_1501	220	AHQICPVGAVVATKT	QICPVGAVV	0.3372	1301.0	50.00
DRB1_1501	219	QAHQICPVGAVVATK	QICPVGAVV	0.3368	1307.7	50.00
DRB1_1501	445	LDSVLSAELSPHVMG	VLSAELSPH	0.3364	1312.5	50.00
DRB1_1501	545	RFVDDISFVVSQSR	DISFVVSQ	0.3363	1314.6	50.00
DRB1_1501	546	FVDDISFVVSQSRD	DISFVVSQ	0.3356	1324.8	50.00
DRB1_1501	56	QRLTRARQRITDPQV	LTRARQRIT	0.3351	1331.7	50.00
DRB1_1501	64	RITDPQVRVVIAGLL	QVRVVIAGL	0.3349	1333.8	50.00
DRB1_1501	537	SEAKANVRRFVDDIS	NVRRFVDDI	0.3340	1347.0	50.00
DRB1_1501	235	DLYPRWREIVNANA	LYPRWREIV	0.3338	1350.1	50.00
DRB1_1501	232	TKTDLYPRWREIVNA	LYPRWREIV	0.3312	1388.7	50.00

DRB1_1501	412	NAIATAVGDNFVWAY	AVGDNFVWA	0.3309	1392.9	50.00
DRB1_1501	176	PGVGGLGQPHLSATL	GVGGLGQPH	0.3301	1406.2	50.00
DRB1_1501	486	MRGSYGGVVMIGMLS	MRGSYGGVV	0.3294	1416.1	50.00
DRB1_1501	301	TERVTRAGVLGEIRSA	RAGVLGEIR	0.3286	1429.1	50.00
DRB1_1501	231	ATKTDLYPRWREIVN	LYPRWREIV	0.3263	1464.3	50.00
DRB1_1501	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.3259	1470.9	50.00
DRB1_1501	580	ITRSLTESLQATIAA	LTESLQATI	0.3247	1489.8	50.00
DRB1_1501	36	VELIDHTIAIAKLNE	ELIDHTIAI	0.3239	1503.8	50.00
DRB1_1501	252	QRARVPMPPIIAVSSL	PMPPIAVSS	0.3231	1515.4	50.00
DRB1_1501	444	GLDSVLSAELSPHVM	VLSAELSPH	0.3231	1515.7	50.00
DRB1_1501	443	AGLSDVLSAELSPHV	VLSAELSPH	0.3231	1516.3	50.00
DRB1_1501	47	KLNERGDLYVQLTRA	DLVQLTRA	0.3209	1553.4	50.00
DRB1_1501	379	LRTRFRFTVTEAERQ	LRTRFRFTV	0.3208	1553.7	50.00
DRB1_1501	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.3204	1561.1	50.00
DRB1_1501	214	MWFVRQAHQICPVGA	WFVRQAHQI	0.3201	1565.7	50.00
DRB1_1501	448	VLSAELSPHVMGTDF	VLSAELSPH	0.3189	1586.3	50.00
DRB1_1501	487	RGSYGGVVMIGMLSS	GVMIGMLS	0.3186	1591.6	50.00
DRB1_1501	11	LRRKRARKWGDVTVP	LRRKRARKW	0.3177	1606.7	50.00
DRB1_1501	543	VRRFVDDISFVVSQK	DISFVVSQK	0.3176	1608.6	50.00
DRB1_1501	454	SPHVMGTDFGRLKAL	VMGTDFGRL	0.3175	1611.1	50.00
DRB1_1501	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.3174	1612.3	50.00
DRB1_1501	579	EITRSLTESLQATIA	LTESLQATI	0.3173	1613.6	50.00
DRB1_1501	566	QRLLRDHYREIAEEI	LLRDHYREI	0.3162	1634.1	50.00
DRB1_1501	208	EFTPEMWFVRQAHQ	EMWFVRQAH	0.3158	1640.8	50.00
DRB1_1501	315	ATEQLAVSLGSELSV	AVSLGSELS	0.3153	1648.8	50.00
DRB1_1501	177	GVGGLGQPHLSATLG	GVGGLGQPH	0.3143	1666.9	50.00
DRB1_1501	551	SFVVSQKSRDRLKMI	SFVVSQKSR	0.3120	1708.7	50.00
DRB1_1501	601	ERDNRIRELQRQLGI	RIRELQRQL	0.3120	1709.2	50.00
DRB1_1501	357	TALWQQVLGDGFNDL	TALWQQVLG	0.3110	1728.7	50.00
DRB1_1501	550	ISFVVSQKSRDRLKM	SFVVSQKSR	0.3108	1731.3	50.00
DRB1_1501	88	SLLNLPAAARVGDDEA	SLLNLPAAAR	0.3107	1733.8	50.00
DRB1_1501	583	SLTESLQATIAAAQV	LTESLQATI	0.3092	1762.8	50.00
DRB1_1501	544	RRFVDDISFVVSQKS	DISFVVSQK	0.3085	1776.4	50.00
DRB1_1501	57	RLTRARQRITDPQVR	RLTRARQRI	0.3082	1782.2	50.00
DRB1_1501	618	QVNDNLAGLEPTLTP	NLAGLEPTL	0.3054	1836.8	50.00
DRB1_1501	578	EITRSLTESLQATI	ITRSLTESL	0.3032	1880.4	50.00
DRB1_1501	314	SATEQLAVSLGSELS	AVSLGSELS	0.3018	1909.7	50.00
DRB1_1501	567	RLLRDHYREIAEIEIT	LLRDHYREI	0.2996	1955.3	50.00
DRB1_1501	509	NPLSVGAGLILGRMA	SVGAGLILG	0.2992	1962.9	50.00
DRB1_1501	230	VATKTDLYPRWREIV	KTDLYPRWR	0.2989	1970.1	50.00
DRB1_1501	228	AVVATKTDLYPRWRE	VVATKTDLY	0.2988	1971.0	50.00
DRB1_1501	350	AQQAVQQTALWQQVL	AVQQTALWQ	0.2988	1971.6	50.00
DRB1_1501	309	PEGIRSATLAVSL	EIRSATEQL	0.2980	1988.5	50.00
DRB1_1501	225	PVAVVATKTDLYPRV	PVAVVATK	0.2979	1991.7	50.00
DRB1_1501	371	LTADVVDHLRTRFRFT	VVDHLRTRF	0.2976	1997.1	50.00
DRB1_1501	30	RRVGVIVELIDHTIA	VIVELIDHT	0.2976	1997.5	50.00
DRB1_1501	218	RQAHQICPVGAVVAT	QICPVGAVV	0.2975	2000.0	50.00
DRB1_1501	536	RSEAKANVRRFVDDI	NVRRFVDDI	0.2952	2050.2	50.00
DRB1_1501	175	TPGVGGLGQPHLSAT	GVGGLGQPH	0.2950	2054.7	50.00
DRB1_1501	227	GAVVATKTDLYPRWR	VVATKTDLY	0.2917	2129.2	50.00
DRB1_1501	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.2899	2170.5	50.00
DRB1_1501	221	HQICPVGAVVATKTD	PVGAVVATK	0.2899	2172.1	50.00
DRB1_1501	12	RRKRARKWGDTVTQP	RARKWGDTV	0.2899	2172.2	50.00
DRB1_1501	216	FVRQAHQICPVGAVV	QICPVGAVV	0.2898	2173.5	50.00
DRB1_1501	469	GRMESKPLRRGHKMI	PLRRGHKMI	0.2893	2185.8	50.00
DRB1_1501	179	GGLGQPHLSATLGLL	LGQPHLSAT	0.2876	2225.4	50.00
DRB1_1501	180	GLGQPHLSATLGLLP	LGQPHLSAT	0.2870	2241.6	50.00
DRB1_1501	353	AVQQTALWQQVLGDG	TALWQQVLG	0.2866	2249.3	50.00
DRB1_1501	174	DTPGVGGLGQPHLSA	GVGGLGQPH	0.2858	2270.6	50.00
DRB1_1501	226	VGAVVATKTDLYPRW	VVATKTDLY	0.2854	2280.1	50.00
DRB1_1501	217	VRQAHQICPVGAVVA	QICPVGAVV	0.2853	2283.4	50.00
DRB1_1501	63	QRITDPQVRVVIAGL	QVRVVIAGL	0.2835	2326.8	50.00
DRB1_1501	229	VVATKTDLYPRWREI	VVATKTDLY	0.2829	2342.4	50.00
DRB1_1501	349	EAQQAVQQTALWQQV	AVQQTALWQ	0.2824	2354.4	50.00
DRB1_1501	320	AVSLGSELSVVNDPN	SLGSELSVV	0.2822	2360.0	50.00
DRB1_1501	173	IDTPGVGGLGQPHLS	GVGGLGQPH	0.2816	2374.7	50.00
DRB1_1501	29	PRRVGVIVELIDHTI	RVGVIVELI	0.2809	2394.5	50.00
DRB1_1501	452	ELSPHVMGTDFGRLK	VMGTDFGRL	0.2806	2400.2	50.00
DRB1_1501	442	DAGLDSVLSAELSPH	VLSAELSPH	0.2803	2408.5	50.00
DRB1_1501	222	QICPVGAVVATKTDL	PVGAVVATK	0.2793	2434.5	50.00

DRB1_1501	98	GDDEATVVITVVSYS	VVITVVSYS	0.2789	2445.2	50.00
DRB1_1501	451	AELSPHVMGTDFGRL	VMGTDFGRL	0.2788	2447.4	50.00
DRB1_1501	568	LLRDHYREIAEEITR	LLRDHYREI	0.2757	2533.1	50.00
DRB1_1501	358	ALWQHYVLGDGFNDLT	VLGDGFNDL	0.2751	2548.7	50.00
DRB1_1501	181	LGQPHLSATLGLLPE	LGQPHLSAT	0.2751	2549.8	50.00
DRB1_1501	584	LTESLQATIAAAQVA	LTESLQATI	0.2740	2579.6	50.00
DRB1_1501	577	AEEITRSLTESLQAT	ITRSLTESL	0.2737	2586.2	50.00
DRB1_1501	354	VQQTALWQQVLGDGF	TALWQQVLG	0.2734	2596.1	50.00
DRB1_1501	116	SARLVLAAGPDGTTA	ARLVLAAGP	0.2709	2666.3	50.00
DRB1_1501	423	VWAYQRSEALADDVA	AYQRSEALA	0.2708	2669.7	50.00
DRB1_1501	453	LSPHVMGTDFGRLKA	HVMGTDFGR	0.2698	2697.5	50.00
DRB1_1501	207	QEFTPEMWFVVRQAH	EMWFVRQAH	0.2688	2728.8	50.00
DRB1_1501	355	QQTALWQQVLGDGFN	TALWQQVLG	0.2686	2734.7	50.00
DRB1_1501	524	YKEDKQNRLLRVRSE	KQNRLLRVR	0.2684	2739.9	50.00
DRB1_1501	224	CPVGAVVATKTDLYP	PVGAVVATK	0.2674	2770.1	50.00
DRB1_1501	370	DLTADVVDHDLRTRFR	VDHDLRTRF	0.2664	2799.9	50.00
DRB1_1501	617	SCPVNDNLAGLEPTLT	NLAGLEPTL	0.2659	2814.9	50.00
DRB1_1501	223	ICPVGAVVATKTDLY	PVGAVVATK	0.2656	2824.6	50.00
DRB1_1501	172	FIDTPGVGGLGQPHL	GVGGLGQPH	0.2652	2836.2	50.00
DRB1_1501	58	LTRARQRITDPQVRV	LTRARQRIT	0.2621	2934.5	50.00
DRB1_1501	411	ENAIATAVGDNFVWA	AVGDNFVWA	0.2617	2947.4	50.00
DRB1_1501	356	QTALWQQVLGDGFND	TALWQQVLG	0.2611	2966.7	50.00
DRB1_1501	360	WQQLVGDGFNDLTAD	VLGDGFNDL	0.2598	3007.5	50.00
DRB1_1501	115	PSARLVLAAGPDGTT	ARLVLAAGP	0.2596	3013.3	50.00
DRB1_1501	178	VGGLGQPHLSATLGL	LGQPHLSAT	0.2594	3020.4	50.00
DRB1_1501	311	EIRSATEQLAVSLGS	EIRSATEQL	0.2574	3086.2	50.00
DRB1_1501	523	AYKEDKQNRLLRVR	KQNRLLRVR	0.2556	3147.9	50.00
DRB1_1501	28	DPRRVGVIVELIDHT	RVGVIVELI	0.2553	3158.8	50.00
DRB1_1501	310	GEIRSATEQLAVSLG	EIRSATEQL	0.2549	3172.1	50.00
DRB1_1501	13	RKRARKWGDVTVTPD	RARKWGDTV	0.2535	3218.8	50.00
DRB1_1501	508	FNPLSVGAGLILGRM	SVGAGLILG	0.2533	3226.0	50.00
DRB1_1501	348	REAQQAVQQTALWQQ	AVQQTALWQ	0.2518	3277.8	50.00
DRB1_1501	576	IAEEITRSLTESLQA	EITRSLTES	0.2518	3280.4	50.00
DRB1_1501	322	SLGSELSVVNDPNLR	SLGSELSVV	0.2516	3285.9	50.00
DRB1_1501	114	QPSARLVLAAGPDGT	SARLVLAAG	0.2506	3321.7	50.00
DRB1_1501	359	LRQVVLGDGFNDLTA	VLGDGFNDL	0.2493	3370.2	50.00
DRB1_1501	155	LWQVVGADSPPLLRGA	RVEVGAPSP	0.2488	3388.3	50.00
DRB1_1501	321	VSLGSELSVVNDPNL	SLGSELSVV	0.2472	3447.3	50.00
DRB1_1501	347	KREAQQAVQQTALWQ	AVQQTALWQ	0.2462	3482.8	50.00
DRB1_1501	574	REIAEEITRSLTESL	ITRSLTESL	0.2461	3486.3	50.00
DRB1_1501	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.2461	3488.2	50.00
DRB1_1501	325	SELSVVNDPNLRDRL	SELSVVNDP	0.2405	3705.0	50.00
DRB1_1501	113	AQPSARLVLAAGPDG	SARLVLAAG	0.2399	3730.6	50.00
DRB1_1501	468	LGRMESKPLRRGHKM	ESKPLRRGH	0.2398	3735.4	50.00
DRB1_1501	60	RARQRITDPQVRVVI	RARQRITDP	0.2389	3770.6	50.00
DRB1_1501	600	TERDNRIRELQRQLG	RIRELQRQL	0.2386	3783.6	50.00
DRB1_1501	449	LSAELSPHVMGTDFG	ELSPHVMGT	0.2383	3795.4	50.00
DRB1_1501	313	RSATEQLAVSLGSEL	ATEQLAVSL	0.2382	3798.6	50.00
DRB1_1501	575	EIAEEITRSLTESLQ	EITRSLTES	0.2363	3877.0	50.00
DRB1_1501	27	DDPRRVGVIVELIDH	RVGVIVELI	0.2354	3915.6	50.00
DRB1_1501	117	ARLVLAAGPDGTTAA	ARLVLAAGP	0.2341	3972.8	50.00
DRB1_1501	280	NEESNFPPIVVKFLSE	NFPPIVVKFL	0.2325	4039.3	50.00
DRB1_1501	361	QQVLGDGFNDLTADV	VLGDGFNDL	0.2308	4114.2	50.00
DRB1_1501	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.2302	4141.5	50.00
DRB1_1501	112	SAQPSARLVLAAGPD	SARLVLAAG	0.2289	4202.6	50.00
DRB1_1501	323	LGSELSVVNDPNLRD	ELSVVNDPN	0.2283	4226.4	50.00
DRB1_1501	369	NDLTADVVDHDLRTRF	VDHDLRTRF	0.2274	4270.0	50.00
DRB1_1501	59	TRARQRITDPQVRVV	RARQRITDP	0.2256	4354.2	50.00
DRB1_1501	45	IAKLNERGDLVQRLT	KLNERGDLV	0.2223	4512.7	50.00
DRB1_1501	431	ALADDVARSFADAGL	VARSFADAG	0.2204	4608.2	50.00
DRB1_1501	108	VVSYSAQPSARLVLA	VVSYSAQPS	0.2196	4646.8	50.00
DRB1_1501	279	LNEESNFPPIVVKFLS	NFPPIVVKFL	0.2189	4681.3	50.00
DRB1_1501	171	AFIDTPGVGGLGQPH	GVGGLGQPH	0.2173	4762.8	50.00
DRB1_1501	111	YSAQPSARLVLAAGP	SARLVLAAG	0.2170	4777.5	50.00
DRB1_1501	613	LGILSQVNDNLAGLE	GILSQVNDN	0.2161	4825.4	50.00
DRB1_1501	278	ELNEESNFPPIVVKFL	NFPPIVVKFL	0.2160	4830.3	50.00
DRB1_1501	156	RVEVGAPSPPLLRGGL	RVEVGAPSP	0.2160	4832.0	50.00
DRB1_1501	26	PDDPRRVGVIVELID	RVGVIVELI	0.2146	4906.1	50.00
DRB1_1501	433	ADDVARSFADAGLDS	VARSFADAG	0.2141	4928.5	50.00
DRB1_1501	25	QPDDPRRVGVIVELI	RVGVIVELI	0.2141	4928.9	50.00

DRB1_1501	182	GQPHLSATLGLLPEA	GQPHLSATL	0.2141	4932.6	50.00
DRB1_1501	362	QVLGDGFNDLTADVD	VLGDGFNDL	0.2134	4969.5	50.00
DRB1_1501	146	APHAGGREVLRVEVG	AGGREVLRV	0.2130	4988.3	50.00
DRB1_1501	552	FVVSQKSRDRLKMIQ	FVVSQKSRD	0.2130	4989.9	50.00
DRB1_1501	434	DDVARSFADAGLDSV	VARSFADAG	0.2125	5014.3	50.00
DRB1_1501	46	AKLNERGDLVQRLTR	KLNERGDLV	0.2116	5066.7	50.00
DRB1_1501	324	GSELSVVNDPNLRDR	ELSVVNDPN	0.2112	5086.9	50.00
DRB1_1501	440	FADAGLDSVLSAELS	AGLDSVLSA	0.2067	5342.2	50.00
DRB1_1501	14	KRARKWGDVTVTQDD	RARKWGDTV	0.2048	5453.9	50.00
DRB1_1501	326	ELSVVNDPNLRDRLA	SVVNDPNLR	0.2042	5487.4	50.00
DRB1_1501	328	SVVNDPNLRDRLASD	NLRDRLASD	0.2027	5577.3	50.00
DRB1_1501	346	RKREAQQAVQQTALW	AQQAVQQT	0.2023	5603.8	50.00
DRB1_1501	435	DVARSFADAGLDSVL	VARSFADAG	0.2020	5623.0	50.00
DRB1_1501	329	VVNDPNLRDRLASDL	NLRDRLASD	0.2019	5625.0	50.00
DRB1_1501	614	GILSQVNDNLAGLEP	GILSQVNDN	0.2012	5668.3	50.00
DRB1_1501	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.2012	5671.4	50.00
DRB1_1501	533	LRVRSEAKANVRRFV	RVRSEAKAN	0.2011	5675.0	50.00
DRB1_1501	110	SYSAQPSARLVLAAG	SARLVLAAG	0.1997	5761.5	50.00
DRB1_1501	312	IRSATEQLAVSLGSE	ATEQLAVSL	0.1996	5769.2	50.00
DRB1_1501	450	SAELSPHVMGTFGR	ELSPHVMGT	0.1994	5781.8	50.00
DRB1_1501	430	EALADDVARSFADAG	VARSFADAG	0.1976	5892.5	50.00
DRB1_1501	432	LADDVARSFADAGLD	VARSFADAG	0.1961	5988.5	50.00
DRB1_1501	188	ATLGLLPEADAVLVV	ATLGLLPEA	0.1960	5997.8	50.00
DRB1_1501	585	TESLQATIAAAQVAE	SLQATIAAA	0.1951	6053.0	50.00
DRB1_1501	424	WAYQRSEALADDVAR	AYQRSEALA	0.1947	6081.4	50.00
DRB1_1501	554	VSKQSRDRLKMIQRL	DRLKMIQRL	0.1932	6179.2	50.00
DRB1_1501	157	VEVGAPSPLLRGGLA	SPLLRGGLA	0.1927	6216.3	50.00
DRB1_1501	522	MAYKEDKQNRLLRVR	KQNRLLRVR	0.1917	6283.8	50.00
DRB1_1501	535	VRSEAKANVRRFVDD	EAKANVRRF	0.1905	6367.2	50.00
DRB1_1501	327	LSVVNDPNLRDRLAS	SVVNDPNLR	0.1901	6390.6	50.00
DRB1_1501	187	SATLGLLPEADAVLV	ATLGLLPEA	0.1896	6427.5	50.00
DRB1_1501	363	VLGDGFNDLTADVDH	VLGDGFNDL	0.1882	6528.4	50.00
DRB1_1501	573	YREIAEEITRSLTES	EITRSLTES	0.1881	6536.0	50.00
DRB1_1501	439	SFADAGLDSVLSAEL	AGLDSVLSA	0.1868	6627.0	50.00
DRB1_1501	553	VVSKQSRDRLKMIQR	VVSKQSRDR	0.1854	6722.9	50.00
DRB1_1501	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.1833	6880.5	50.00
DRB1_1501	616	LSQVNDNLAGLEPTL	NLAGLEPTL	0.1814	7024.6	50.00
DRB1_1501	199	VLVVS DTSQEFTEPE	VLVVS DTSQ	0.1812	7039.3	50.00
DRB1_1501	334	NLRDRLASDLERRKR	NLRDRLASD	0.1812	7039.4	50.00
DRB1_1501	145	RAPHAGGREVLRVEV	HAGGREVLR	0.1808	7066.9	50.00
DRB1_1501	333	PNLRDRLASDLERRK	NLRDRLASD	0.1805	7094.5	50.00
DRB1_1501	144	RRAPHAGGREVLRVE	HAGGREVLR	0.1801	7124.5	50.00
DRB1_1501	331	NDPNLRDRLASDLER	NLRDRLASD	0.1786	7242.0	50.00
DRB1_1501	183	QPHLSATLGLLPEAD	HLSATLGLL	0.1782	7268.8	50.00
DRB1_1501	15	RARKWGDVTVTQDDP	RARKWGDTV	0.1773	7343.4	50.00
DRB1_1501	330	VNDPNLRDRLASDLE	NLRDRLASD	0.1771	7359.3	50.00
DRB1_1501	62	RQRITDPQVRVVIAG	RITDPQVRV	0.1756	7476.3	50.00
DRB1_1501	599	ETERDNRIRELQRQL	RIRELQRQL	0.1751	7521.2	50.00
DRB1_1501	380	RTRFRVTVEDAERQI	RTRFRVTVE	0.1736	7639.5	50.00
DRB1_1501	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.1730	7694.9	50.00
DRB1_1501	341	SDLERRKREAQQAVQ	ERRKREAQQ	0.1727	7721.1	50.00
DRB1_1501	186	LSATLGLLPEADAVL	ATLGLLPEA	0.1723	7750.1	50.00
DRB1_1501	332	DPNLRDRLASDLERR	NLRDRLASD	0.1707	7882.6	50.00
DRB1_1501	338	RLASDLERRKREAQQ	RLASDLERR	0.1707	7883.2	50.00
DRB1_1501	425	AYQRSEALADDVAR	AYQRSEALA	0.1700	7942.0	50.00
DRB1_1501	436	VARSFADAGLDSVLS	VARSFADAG	0.1696	7983.3	50.00
DRB1_1501	143	VRRAPHAGGREVLRV	HAGGREVLR	0.1695	7990.2	50.00
DRB1_1501	184	PHLSATLGLLPEADA	HLSATLGLL	0.1693	8002.9	50.00
DRB1_1501	340	ASDLERRKREAQQAV	ERRKREAQQ	0.1675	8167.0	50.00
DRB1_1501	61	ARQRITDPQVRVVI	ITDPQVRV	0.1639	8492.5	50.00
DRB1_1501	138	DISTDVRRAPHAGGR	DVRRAPHAG	0.1631	8558.7	50.00
DRB1_1501	586	ESLQATIAAAQVAET	SLQATIAAA	0.1627	8600.7	50.00
DRB1_1501	337	DRLASDLERRKREAQ	RLASDLERR	0.1614	8718.5	50.00
DRB1_1501	342	DLERRKREAQQAVQQ	DLERRKREA	0.1609	8765.7	50.00
DRB1_1501	185	HLSATLGLLPEADAV	TLGLLPEAD	0.1594	8911.4	50.00
DRB1_1501	109	VSYSAQPSARLVLA	VSYSAQPSA	0.1589	8956.4	50.00
DRB1_1501	405	EIGNDVENAIATAVG	DVENAIATA	0.1588	8972.1	50.00
DRB1_1501	339	LASDLERRKREAQQA	DLERRKREA	0.1567	9171.1	50.00
DRB1_1501	438	RSFADAGLDSVLSAE	DAGLDSVLS	0.1566	9184.5	50.00
DRB1_1501	267	LRSHAVTLNDKELNE	LRSHAVTLN	0.1563	9215.7	50.00

DRB1_1501	572	HYREIAEEITRSLTE	REIAEEITR	0.1560	9246.7	50.00
DRB1_1501	364	LGDFNDLTADVHDH	GFNDLTADV	0.1553	9314.4	50.00
DRB1_1501	139	ISTDVRRAPHAGGRE	DVRRAPHAG	0.1542	9430.6	50.00
DRB1_1501	336	RDRLASDLERRKREA	RLASDLERR	0.1536	9493.7	50.00
DRB1_1501	404	AEIGNDVENAIATAV	DVENAIATA	0.1534	9504.1	50.00
DRB1_1501	97	VGDDEATVVITVVS	TVVITVVS	0.1533	9518.2	50.00
DRB1_1501	587	SLQATIAAAQVAETE	SLQATIAAA	0.1522	9629.6	50.00
DRB1_1501	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.1515	9706.0	50.00
DRB1_1501	137	DDISTDVRRAPHAGG	STDVRRAPH	0.1513	9731.6	50.00
DRB1_1501	142	DVRRAPHAGGREVLR	HAGGREVLR	0.1497	9894.6	50.00
DRB1_1501	406	IGNDVENAIATAVGD	DVENAIATA	0.1497	9897.1	50.00
DRB1_1501	89	LLNLPAARVGDDEAT	LLNLPAARV	0.1486	10019.2	50.00
DRB1_1501	140	STDVRRAPHAGGREV	DVRRAPHAG	0.1485	10026.5	50.00
DRB1_1501	408	NDVENAIATAVGDNF	DVENAIATA	0.1479	10091.6	50.00
DRB1_1501	134	IPVDDISTDVRRAPH	STDVRRAPH	0.1479	10094.6	50.00
DRB1_1501	189	TLGLLPEADAVLVVS	TLGLLPEAD	0.1478	10102.0	50.00
DRB1_1501	135	PVDDISTDVRRAPHA	DISTDVRR	0.1473	10157.5	50.00
DRB1_1501	409	DVENAIATAVGDNFV	DVENAIATA	0.1468	10212.7	50.00
DRB1_1501	136	VDDISTDVRRAPHAG	STDVRRAPH	0.1467	10226.7	50.00
DRB1_1501	407	GNDVENAIATAVGDN	DVENAIATA	0.1464	10256.3	50.00
DRB1_1501	429	SEALADDVARSFADA	ALADDVARS	0.1459	10313.9	50.00
DRB1_1501	335	LRDLASDLERRKRE	RLASDLERR	0.1454	10365.5	50.00
DRB1_1501	343	LERRKREAQQAVQQT	ERRKREAQQ	0.1448	10438.9	50.00
DRB1_1501	344	ERRKREAQQAVQQT	ERRKREAQQ	0.1431	10630.3	50.00
DRB1_1501	365	GDGFNDLTADVHDH	GFNDLTADV	0.1430	10646.3	50.00
DRB1_1501	141	TDVRRAPHAGGREVL	DVRRAPHAG	0.1423	10725.9	50.00
DRB1_1501	403	WAEIGNDVENAIATA	DVENAIATA	0.1421	10740.2	50.00
DRB1_1501	437	ARSFADAGLDSVLSA	AGLDSVLSA	0.1417	10798.3	50.00
DRB1_1501	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.1405	10935.3	50.00
DRB1_1501	521	RMAYKEDKQNRLLRV	RMAYKEDKQ	0.1402	10966.3	50.00
DRB1_1501	394	IDSCDPTAHWAEIGN	DSCDPTAHW	0.1396	11035.4	50.00
DRB1_1501	393	QIDSCDPTAHWAEIG	DSCDPTAHW	0.1393	11076.2	50.00
DRB1_1501	569	LRDHYREIAEEITRS	LRDHYREIA	0.1378	11256.2	50.00
DRB1_1501	571	DHYREIAEEITRSLT	REIAEEITR	0.1372	11335.5	50.00
DRB1_1501	277	KELNEESNFPATVKF	ELNEESNFP	0.1368	11382.9	50.00
DRB1_1501	22	TVTQPDPPRRVGVIV	VTQPDPPRR	0.1362	11456.3	50.00
DRB1_1501	368	FNDLTADVHDHLRTR	VDHDLRTR	0.1355	11547.3	50.00
DRB1_1501	133	DIPVDDISTDVRRAP	VDDISTDVR	0.1348	11626.4	50.00
DRB1_1501	395	DSCDPTAHWAEIGND	DSCDPTAHW	0.1347	11646.8	50.00
DRB1_1501	191	GLLPEADAVLVVSDT	DAVLVSDT	0.1342	11704.8	50.00
DRB1_1501	410	VENAIATAVGDNFVW	TAVGDNFVW	0.1341	11716.1	50.00
DRB1_1501	428	RSEALADDVARSFAD	ALADDVARS	0.1327	11895.3	50.00
DRB1_1501	615	ILSQVNDNLGLEPT	ILSQVNDNL	0.1318	12010.6	50.00
DRB1_1501	132	VDIPVDDISTDVRR	PVDDISTDV	0.1309	12133.8	50.00
DRB1_1501	520	GRMAYKEDKQNRLLR	RMAYKEDKQ	0.1305	12179.8	50.00
DRB1_1501	366	DGFNDLTADVHDHLR	GFNDLTADV	0.1292	12351.3	50.00
DRB1_1501	268	RSHAVTLNDKELNEE	HAVTLNDKE	0.1284	12458.7	50.00
DRB1_1501	570	RDHYREIAEEITRSL	EIAEEITRS	0.1284	12461.5	50.00
DRB1_1501	206	SQEFTEPEMWFVRQA	PEMWFVRQA	0.1274	12591.9	50.00
DRB1_1501	345	RRKREAQQAVQQTAL	RRKREAQQ	0.1246	12980.6	50.00
DRB1_1501	16	ARKWGDVTQPDPR	ARKWGDVT	0.1237	13109.5	50.00
DRB1_1501	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.1230	13218.0	50.00
DRB1_1501	21	DTVTQPDPPRRVGV	VTQPDPPRR	0.1227	13249.5	50.00
DRB1_1501	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.1223	13309.7	50.00
DRB1_1501	427	QRSEALADDVARSFA	ALADDVARS	0.1221	13347.3	50.00
DRB1_1501	190	LGLLPEADAVLVVSD	GLLPEADAV	0.1221	13347.6	50.00
DRB1_1501	396	SCDPTAHWAEIGNDV	DPTAHWAEI	0.1209	13519.7	50.00
DRB1_1501	18	KWGDVTQPDPPRRV	VTQPDPPRR	0.1195	13728.9	50.00
DRB1_1501	597	VAETERDNRIRELQR	ETERDNRI	0.1189	13814.0	50.00
DRB1_1501	20	GDTVQPDPPRRVGV	VTQPDPPRR	0.1180	13951.3	50.00
DRB1_1501	19	WGDTVQPDPPRRVGV	VTQPDPPRR	0.1177	13997.5	50.00
DRB1_1501	23	VTQPDPPRRVGVIVE	VTQPDPPRR	0.1173	14060.8	50.00
DRB1_1501	519	LGRMAYKEDKQNRLL	RMAYKEDKQ	0.1171	14082.6	50.00
DRB1_1501	24	TQPDPPRRVGVIVEL	RRVGVIVEL	0.1164	14189.4	50.00
DRB1_1501	120	VLAAGPDGTTAAVDI	AAGPDGTTA	0.1163	14211.0	50.00
DRB1_1501	269	SHAVTLNDKELNEES	VTLNDKELN	0.1162	14214.3	50.00
DRB1_1501	426	YQRSEALADDVARSF	ALADDVARS	0.1159	14266.0	50.00
DRB1_1501	398	DPTAHWAEIGNDVEN	HWAEIGNDV	0.1159	14274.2	50.00
DRB1_1501	131	AVDIPVDDISTDVRR	PVDDISTDV	0.1155	14326.5	50.00
DRB1_1501	596	QVAETERDNRIRELQ	ETERDNRI	0.1140	14571.5	50.00

DRB1_1501	397	CDPTAHWAEIGNDVE	HWAEIGNDV	0.1139	14576.2	50.00
DRB1_1501	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.1136	14630.6	50.00
DRB1_1501	595	AQVAETERDNRIREL	ETERDNRIR	0.1130	14718.4	50.00
DRB1_1501	367	GFNDLTADVHDHLRT	GFNDLTADV	0.1117	14932.2	50.00
DRB1_1501	121	LAAGPDGTTAAVDIP	AAGPDGTTA	0.1107	15098.7	50.00
DRB1_1501	122	AAGPDGTTAAVDIPV	AAGPDGTTA	0.1106	15109.2	50.00
DRB1_1501	130	AAVDIPVDDISTDVR	PVDDISTDV	0.1101	15188.3	50.00
DRB1_1501	598	AETERDNRIRELQRQ	ETERDNRIR	0.1092	15337.4	50.00
DRB1_1501	270	HAVTLNDKELNEESN	VTLNDKELN	0.1085	15459.9	50.00
DRB1_1501	594	AAQVAETERDNRIRE	ETERDNRIR	0.1075	15631.6	50.00
DRB1_1501	17	RKQGDVTVTQPDDPRR	VTQPDDPRR	0.1041	16205.1	50.00
DRB1_1501	276	DKELNEESNFPAIVK	ELNEESNFP	0.1036	16299.9	50.00
DRB1_1501	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.1012	16735.8	50.00
DRB1_1501	91	NLPAARVGDDEATVV	RVGDDEATV	0.0998	16991.9	50.00
DRB1_1501	399	PTAHWAEIGNDVENA	HWAEIGNDV	0.0997	17001.1	50.00
DRB1_1501	90	LNLPAARVGDDEATV	RVGDDEATV	0.0996	17014.6	50.00
DRB1_1501	96	RVGDDEATVVITVVS	RVGDDEATV	0.0985	17221.8	50.00
DRB1_1501	94	AARVGDDEATVVITV	RVGDDEATV	0.0982	17275.8	50.00
DRB1_1501	593	AAAQVAETERDNRIR	ETERDNRIR	0.0978	17355.0	50.00
DRB1_1501	275	NDKELNEESNFPAIV	ELNEESNFP	0.0975	17407.3	50.00
DRB1_1501	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.0967	17565.1	50.00
DRB1_1501	381	TRFRTVTEDAERQID	RFRTVTEDA	0.0961	17684.8	50.00
DRB1_1501	400	TAHWAEIGNDVENAI	HWAEIGNDV	0.0951	17867.0	50.00
DRB1_1501	95	ARVGDDEATVVITVV	RVGDDEATV	0.0945	17985.3	50.00
DRB1_1501	204	DTSQEFTEPEMWFVR	FTEPEMWFV	0.0941	18058.4	50.00
DRB1_1501	93	PAARVGDDEATVVIT	RVGDDEATV	0.0940	18090.3	50.00
DRB1_1501	200	LVVSDTTSQEFTEPEM	LVVSDTTSQE	0.0939	18109.9	50.00
DRB1_1501	92	LPAARVGDDEATVVI	RVGDDEATV	0.0917	18536.7	50.00
DRB1_1501	271	AVTLNDKELNEESNF	VTLNDKELN	0.0907	18742.6	50.00
DRB1_1501	203	SDTTSQEFTEPEMWFV	TSQEFTEPE	0.0900	18891.0	50.00
DRB1_1501	589	QATIAAAQVAETERD	TIAAAQVAE	0.0865	19611.2	50.00
DRB1_1501	129	TAAVDIPVDDISTDV	PVDDISTDV	0.0834	20289.6	50.00
DRB1_1501	402	HWAEIGNDVENAIAT	EIGNDVENA	0.0821	20562.5	50.00
DRB1_1501	588	LQATIAAAQVAETER	ATIAAAQVA	0.0819	20603.3	50.00
DRB1_1501	590	ATIAAAQVAETERDN	TIAAAQVAE	0.0818	20643.9	50.00
DRB1_1501	591	TIAAAQVAETERDNR	IAAAQVAET	0.0806	20901.7	50.00
DRB1_1501	128	TIAAAQVAVDDISTD	VDIPVDDIS	0.0799	21055.4	50.00
DRB1_1501	592	IAAAQVAETERDNRI	IAAAQVAET	0.0792	21215.0	50.00
DRB1_1501	127	GTAAVDIPVDDIST	VDIPVDDIS	0.0790	21270.1	50.00
DRB1_1501	387	TEDAERQIDSCDPTA	DAERQIDSC	0.0778	21553.7	50.00
DRB1_1501	274	LNDKELNEESNFPAI	ELNEESNFP	0.0776	21591.0	50.00
DRB1_1501	401	AHWAEIGNDVENAIA	EIGNDVENA	0.0770	21736.1	50.00
DRB1_1501	272	VTLNDKELNEESNFP	VTLNDKELN	0.0770	21737.3	50.00
DRB1_1501	126	DGTTAAVDIPVDDIS	VDIPVDDIS	0.0740	22440.6	50.00
DRB1_1501	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.0740	22460.3	50.00
DRB1_1501	123	AGPDGTTAAVDIPVD	AGPDGTTAA	0.0717	23013.5	50.00
DRB1_1501	202	VSDTTSQEFTEPEMWF	TSQEFTEPE	0.0701	23412.9	50.00
DRB1_1501	201	VVSDTTSQEFTEPEMW	VVSDTTSQEF	0.0658	24544.9	50.00
DRB1_1501	273	TLNDKELNEESNFPA	ELNEESNFP	0.0655	24627.3	50.00
DRB1_1501	386	VTEDAERQIDSCDPT	DAERQIDSC	0.0645	24882.9	50.00
DRB1_1501	125	PDGTTAAVDIPVDDI	TTAAVDIPV	0.0626	25401.9	50.00
DRB1_1501	384	RTVTEDAERQIDSCD	DAERQIDSC	0.0570	26998.8	50.00
DRB1_1501	385	TVTEDAERQIDSCDP	DAERQIDSC	0.0569	27007.6	50.00
DRB1_1501	383	FRTVTEDAERQIDSC	DAERQIDSC	0.0484	29610.2	50.00
DRB1_1501	124	GPDGTTAAVDIPVDD	TTAAVDIPV	0.0412	32025.1	50.00

Allele: DRB1_1501. Number of high binders 31. Number of weak binders 143. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB3_0101	540	KANVRRFVDDISFVV	FVDDISFVV	0.7304	18.5	SB	0.15
DRB3_0101	541	ANVRRFVDDISFVVS	FVDDISFVV	0.7150	21.8	SB	0.20
DRB3_0101	542	NVRRFVDDISFVVSK	FVDDISFVV	0.6928	27.8	SB	0.30
DRB3_0101	543	VRRFVDDISFVVSKQ	FVDDISFVV	0.6634	38.1	SB	0.80
DRB3_0101	544	RRFVDDISFVVSKQS	FVDDISFVV	0.6289	55.4	WB	0.80
DRB3_0101	545	RFVDDISFVVSKQSR	FVDDISFVV	0.6223	59.5	WB	0.80
DRB3_0101	546	FVDDISFVVSKQSRD	FVDDISFVV	0.5978	77.6	WB	1.00

DRB3_0101	402	HWAEIGNDVENAIAIAT	IGNDVENAI	0.5817	92.4	WB	2.00
DRB3_0101	401	AHWAEIGNDVENAIA	IGNDVENAI	0.5805	93.6	WB	2.00
DRB3_0101	400	TAHWAEIGNDVENAI	IGNDVENAI	0.5779	96.3	WB	2.00
DRB3_0101	403	WAEIGNDVENAIAATA	IGNDVENAI	0.5712	103.5	WB	2.00
DRB3_0101	404	AEIGNDVENAIAATAV	IGNDVENAI	0.5562	121.8	WB	2.00
DRB3_0101	405	EIGNDVENAIAATAVG	IGNDVENAI	0.5468	134.7	WB	2.00
DRB3_0101	406	IGNDVENAIAATAVGD	IGNDVENAI	0.5205	179.1	WB	4.00
DRB3_0101	369	NDLTADVVDHDLRTRF	LTADVVDHDL	0.4828	269.4	WB	4.00
DRB3_0101	370	DLTADVVDHDLRTRFR	LTADVVDHDL	0.4716	303.9	WB	4.00
DRB3_0101	196	ADAVLVVSDTSQEF	VVSDTSQEF	0.4673	318.6	WB	4.00
DRB3_0101	365	DGAVLTLTADVVDHDL	LTADVVDHDL	0.4671	319.2	WB	4.00
DRB3_0101	195	EADAVLVVSDTSQEF	VVSDTSQEF	0.4651	326.2	WB	4.00
DRB3_0101	366	DGFNDLTADVVDHDLR	LTADVVDHDL	0.4636	331.5	WB	4.00
DRB3_0101	367	GFNDLTADVVDHDLRT	LTADVVDHDL	0.4607	342.0	WB	4.00
DRB3_0101	197	DAVLVVSDTSQEFTE	VVSDTSQEF	0.4605	342.8	WB	4.00
DRB3_0101	198	AVLVVSDTSQEFTEP	VVSDTSQEF	0.4513	378.8	WB	8.00
DRB3_0101	31	YRGEVVELIDHTIAI	ELIDHTIAI	0.4501	383.6	WB	8.00
DRB3_0101	426	YQRSEALADDVARSF	LADDVARSF	0.4456	402.6	WB	8.00
DRB3_0101	428	RSEALADDVARSFAD	LADDVARSF	0.4403	426.6	WB	8.00
DRB3_0101	199	VLVVSDTSQEFTEPE	VVSDTSQEF	0.4396	429.9	WB	8.00
DRB3_0101	427	QRSEALADDVARSF	LADDVARSF	0.4356	449.1	WB	8.00
DRB3_0101	539	AKANVRRFVDDISFV	RFVDDISFV	0.4347	453.5	WB	8.00
DRB3_0101	429	SEALADDVARSFADA	LADDVARSF	0.4307	473.5	WB	8.00
DRB3_0101	200	LVVSDTSQEFTEPEM	VVSDTSQEF	0.4278	488.2	WB	8.00
DRB3_0101	368	FNDLTADVVDHDLRTR	LTADVVDHDL	0.4247	505.0		8.00
DRB3_0101	32	VGIVELIDHTIAIA	ELIDHTIAI	0.4245	506.4		8.00
DRB3_0101	519	LGRMAYKEDKQNRLL	YKEDKQNR	0.4233	512.7		8.00
DRB3_0101	518	ILGRMAYKEDKQNR	YKEDKQNR	0.4189	537.5		8.00
DRB3_0101	430	EALADDVARSFADAG	LADDVARSF	0.4189	537.7		8.00
DRB3_0101	371	LTADVVDHDLRTRFR	VDHDLRTRF	0.4154	558.7		8.00
DRB3_0101	520	GRMAYKEDKQNRLLR	YKEDKQNR	0.4135	570.3		8.00
DRB3_0101	431	ALADDVARSFADAGL	LADDVARSF	0.4103	590.0		8.00
DRB3_0101	521	RMAYKEDKQNRLLRV	YKEDKQNR	0.4061	617.4		8.00
DRB3_0101	562	LKMIQRLLRDHYREI	LLRDHYREI	0.4051	624.5		8.00
DRB3_0101	92	LPAARVGDDEATVVI	VGDDEATVV	0.3997	661.9		8.00
DRB3_0101	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.3985	670.4		8.00
DRB3_0101	93	PAARVGDDEATVVIT	VGDDEATVV	0.3980	674.4		8.00
DRB3_0101	33	GVIVELIDHTIAIAK	ELIDHTIAI	0.3962	687.3		8.00
DRB3_0101	563	KMIQRLLRDHYREIA	LLRDHYREI	0.3927	714.4		8.00
DRB3_0101	432	LADDVARSFADAGLD	LADDVARSF	0.3887	745.4		8.00
DRB3_0101	91	NLPAARVGDDEATVV	VGDDEATVV	0.3863	765.2		8.00
DRB3_0101	94	AARVGDDEATVVITV	VGDDEATVV	0.3852	774.0		8.00
DRB3_0101	522	MAYKEDKQNRLLRVR	YKEDKQNR	0.3799	820.3		8.00
DRB3_0101	564	MIQRLLRDHYREIAE	LLRDHYREI	0.3760	855.0		16.00
DRB3_0101	95	ARVGDDEATVVITVV	VGDDEATVV	0.3708	904.9		16.00
DRB3_0101	34	VIVELIDHTIAIAKL	ELIDHTIAI	0.3708	905.3		16.00
DRB3_0101	523	AYKEDKQNRLLRVRS	YKEDKQNR	0.3636	977.9		16.00
DRB3_0101	412	NAIATAVGDNFVWAY	VGDNFVWAY	0.3547	1077.3		16.00
DRB3_0101	565	IQRLLRDHYREIAEE	LLRDHYREI	0.3534	1092.6		16.00
DRB3_0101	96	RVGDEATVVITVVS	VGDDEATVV	0.3500	1133.7		16.00
DRB3_0101	413	AIATAVGDNFVWAYQ	VGDNFVWAY	0.3465	1177.3		16.00
DRB3_0101	416	TAVGDNFVWAYQRSE	VGDNFVWAY	0.3444	1203.5		16.00
DRB3_0101	566	QRLLRDHYREIAEEI	LLRDHYREI	0.3371	1303.1		16.00
DRB3_0101	362	QVLGDGFNDLTADV	VLGDGFNDL	0.3362	1315.3		16.00
DRB3_0101	414	IATAVGDNFVWAYQR	VGDNFVWAY	0.3362	1315.5		16.00
DRB3_0101	210	TEPEMWFVRQAHQIC	WFVVRQAHQI	0.3348	1336.5		16.00
DRB3_0101	97	VGDDEATVVITVVS	VGDDEATVV	0.3343	1342.7		16.00
DRB3_0101	418	VGDNFVWAYQRSEAL	VGDNFVWAY	0.3325	1368.8		16.00
DRB3_0101	415	ATAVGDNFVWAYQRS	VGDNFVWAY	0.3309	1392.8		16.00
DRB3_0101	361	QQVLGDGFNDLTADV	VLGDGFNDL	0.3308	1394.6		16.00
DRB3_0101	35	IVELIDHTIAIAKLN	ELIDHTIAI	0.3292	1418.8		16.00
DRB3_0101	417	AVGDNFVWAYQRSEA	VGDNFVWAY	0.3286	1427.8		16.00
DRB3_0101	567	LLRDHYREIAEEIT	LLRDHYREI	0.3278	1440.5		16.00
DRB3_0101	285	FPAIVKFLSEQVLSR	FLSEQVLSR	0.3262	1465.9		16.00
DRB3_0101	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.3228	1521.0		16.00
DRB3_0101	524	YKEDKQNRLLRVRSE	YKEDKQNR	0.3223	1529.7		16.00
DRB3_0101	363	VLGDGFNDLTADV	VLGDGFNDL	0.3187	1590.8		16.00
DRB3_0101	420	DNFVWAYQRSEALAD	YQRSEALAD	0.3128	1695.4		16.00
DRB3_0101	209	FTEPEMWFVRQAHQI	WFVVRQAHQI	0.3126	1698.1		16.00
DRB3_0101	211	EPPEMWFVRQAHQICP	WFVVRQAHQI	0.3119	1711.4		16.00

DRB3_0101	226	VGAVVATKTDLYPRW	VVATKTDLY	0.3110	1727.7	16.00
DRB3_0101	568	LLRDHYREIAEEITR	LLRDHYREI	0.3102	1743.3	16.00
DRB3_0101	286	PAIVKFLSEQVLSRA	FLSEQVLSR	0.3096	1754.7	16.00
DRB3_0101	357	TALWQQVVLGDGFNDL	VLGDGFNDL	0.3095	1756.1	16.00
DRB3_0101	551	SFVWSKQSRDRLKMI	QSRDRLKMI	0.3090	1765.6	16.00
DRB3_0101	224	CPVGVAVVATKTDLYP	VVATKTDLY	0.3079	1786.4	16.00
DRB3_0101	223	ICPVGVAVVATKTDLY	VVATKTDLY	0.3078	1789.2	16.00
DRB3_0101	358	ALWQQVVLGDGFNDLT	VLGDGFNDL	0.3075	1795.1	16.00
DRB3_0101	359	LWQQVVLGDGFNDLTA	VLGDGFNDL	0.3025	1894.7	16.00
DRB3_0101	225	PVGAVVATKTDLYPR	VVATKTDLY	0.3024	1897.2	16.00
DRB3_0101	386	VTEDAERQIDSCDPT	VTEDAERQI	0.3021	1903.4	16.00
DRB3_0101	421	NFVWAYQRSEALADD	YQRSEALAD	0.3018	1909.2	16.00
DRB3_0101	482	MIIGMRGSYGGVVM	MRGSYGGVV	0.3002	1941.7	16.00
DRB3_0101	227	GAVVATKTDLYPRWR	VVATKTDLY	0.2988	1971.4	16.00
DRB3_0101	372	TADVVDHLRTRFRFV	VDHLRTRF	0.2975	2000.1	16.00
DRB3_0101	480	HKMIIGMRGSYGGVV	MRGSYGGVV	0.2962	2028.7	16.00
DRB3_0101	215	WFVVRQAHQICPVGAV	WFVVRQAHQI	0.2958	2037.1	16.00
DRB3_0101	360	WQVVLGDGFNDLTAD	VLGDGFNDL	0.2948	2059.3	16.00
DRB3_0101	204	DTSQEFTEPEMWFVR	FTEPEMWFV	0.2943	2071.3	16.00
DRB3_0101	380	RTRFRFRTVTEDAERQI	VTEDAERQI	0.2925	2111.4	32.00
DRB3_0101	381	TRFRFRTVTEDAERQID	VTEDAERQI	0.2913	2139.1	32.00
DRB3_0101	212	PEMWFVRQAHQICPV	WFVVRQAHQI	0.2913	2139.2	32.00
DRB3_0101	36	VELIDHTIAIAKLNE	ELIDHTIAI	0.2897	2176.7	32.00
DRB3_0101	287	AIVKFLSEQVLSRAT	FLSEQVLSR	0.2894	2182.0	32.00
DRB3_0101	481	KMIIGMRGSYGGVVM	MRGSYGGVV	0.2890	2193.4	32.00
DRB3_0101	228	AVVATKTDLYPRWRE	VVATKTDLY	0.2878	2221.0	32.00
DRB3_0101	422	FVWAYQRSEALADDV	YQRSEALAD	0.2862	2259.2	32.00
DRB3_0101	382	RFRTVTEDAERQIDS	VTEDAERQI	0.2851	2287.3	32.00
DRB3_0101	373	ADVVDHLRTRFRFVTV	VDHLRTRF	0.2850	2289.0	32.00
DRB3_0101	364	LGDFGNLTDADVDHD	GFNDLTADV	0.2826	2350.7	32.00
DRB3_0101	434	DDVARSFADAGLDSV	FADAGLDSV	0.2776	2480.0	32.00
DRB3_0101	374	DVDHDLRTRFRFVTE	VDHLRTRF	0.2754	2539.2	32.00
DRB3_0101	435	DVARSFADAGLDSVL	FADAGLDSV	0.2736	2591.3	32.00
DRB3_0101	37	ELIDHTIAIAKLNER	ELIDHTIAI	0.2728	2613.7	32.00
DRB3_0101	484	IGMRGSYGGVVMIGM	MRGSYGGVV	0.2690	2722.6	32.00
DRB3_0101	72	VVIAGLLKQKQSLL	LKQKQSLL	0.2685	2737.2	32.00
DRB3_0101	552	FVWSKQSRDRLKMIQ	QSRDRLKMI	0.2685	2737.5	32.00
DRB3_0101	213	EMWFVVRQAHQICPVG	WFVVRQAHQI	0.2673	2772.1	32.00
DRB3_0101	375	VDHLRTRFRFVTVTE	VDHLRTRF	0.2672	2777.3	32.00
DRB3_0101	288	IVKFLSEQVLSRATE	FLSEQVLSR	0.2663	2801.6	32.00
DRB3_0101	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.2644	2860.3	32.00
DRB3_0101	73	VIAGLLKQKQSLLN	LKQKQSLL	0.2633	2896.0	32.00
DRB3_0101	423	VWAYQRSEALADDVA	YQRSEALAD	0.2629	2909.0	32.00
DRB3_0101	485	GMRGSYGGVVMIGML	YGGVVMIGM	0.2611	2966.7	32.00
DRB3_0101	78	LKQKQSLLNSLLNL	LKQKQSLL	0.2595	3017.5	32.00
DRB3_0101	74	IAGLLKQKQSLLNS	LKQKQSLL	0.2567	3110.0	32.00
DRB3_0101	229	VVATKTDLYPRWREI	VVATKTDLY	0.2554	3153.5	32.00
DRB3_0101	29	PRRVGVIVELIDHTI	IVELIDHTI	0.2548	3173.3	32.00
DRB3_0101	383	FRTVTEDAERQIDSC	VTEDAERQI	0.2543	3192.5	32.00
DRB3_0101	77	LKQKQSLLNSLLN	LKQKQSLL	0.2535	3218.3	32.00
DRB3_0101	483	IIGMRGSYGGVVMIG	MRGSYGGVV	0.2529	3239.7	32.00
DRB3_0101	424	WAYQRSEALADDVAR	YQRSEALAD	0.2523	3262.7	32.00
DRB3_0101	214	MWFVVRQAHQICPVGA	WFVVRQAHQI	0.2513	3296.8	32.00
DRB3_0101	75	AGLLKQKQSLLNSL	LKQKQSLL	0.2512	3301.3	32.00
DRB3_0101	76	GLLKQKQSLLNSLL	LKQKQSLL	0.2502	3336.6	32.00
DRB3_0101	476	LRRGHKMIIGMRGSY	MIIGMRGSY	0.2491	3375.0	32.00
DRB3_0101	553	VVSKQSRDRLKMIQR	QSRDRLKMI	0.2475	3434.3	32.00
DRB3_0101	437	ARSFADAGLDSVLSA	FADAGLDSV	0.2458	3499.4	32.00
DRB3_0101	206	SQEFTEPEMWFVRQA	FTEPEMWFV	0.2457	3503.4	32.00
DRB3_0101	18	KWGDVTVPDDPRRV	TQPDDPRRV	0.2452	3523.3	32.00
DRB3_0101	384	RTVTEDAERQIDSCD	VTEDAERQI	0.2426	3623.7	32.00
DRB3_0101	30	RRVGVIVELIDHTIA	IVELIDHTI	0.2412	3677.4	32.00
DRB3_0101	554	QSRDRDRLKMIQRL	QSRDRLKMI	0.2406	3701.3	32.00
DRB3_0101	129	TAAVDIPVDDISTDV	PVDDISTDV	0.2405	3705.5	32.00
DRB3_0101	436	VARSFADAGLDSVLS	FADAGLDSV	0.2398	3733.4	32.00
DRB3_0101	486	MRGSYGGVVMIGMLS	MRGSYGGVV	0.2395	3745.0	32.00
DRB3_0101	188	ATLGLLPEADAVLVV	PEADAVLVV	0.2384	3789.8	32.00
DRB3_0101	470	RMESKPLRRGHKMI I	LRRGHKMI I	0.2375	3828.9	32.00
DRB3_0101	438	RSFADAGLDSVLSAE	FADAGLDSV	0.2369	3850.9	32.00
DRB3_0101	19	WGDTVTPDDPRRVG	TQPDDPRRV	0.2364	3872.6	32.00

DRB3_0101	385	TVTEDAERQIDSCDP	VTEDAERQI	0.2362	3880.1	32.00
DRB3_0101	20	GDTVTPQDDPRRVGV	TQPDDPRRV	0.2357	3904.2	32.00
DRB3_0101	130	AAVDIPVDDISTDVR	PVDDISTDV	0.2333	4005.6	32.00
DRB3_0101	21	FTVDTQPDPRRVGVI	TQPDPRRV	0.2328	4026.2	32.00
DRB3_0101	439	SFADAGLDSVLSAEL	FADAGLDSV	0.2312	4097.2	32.00
DRB3_0101	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.2310	4108.0	32.00
DRB3_0101	24	TQPDDPRRVGVIVEL	TQPDDPRRV	0.2307	4121.0	32.00
DRB3_0101	492	GVMIGMLSSVGLG	MLSSVGLG	0.2305	4131.3	32.00
DRB3_0101	489	SYGGVVMIGMLSSV	VMIGMLSSV	0.2295	4174.0	32.00
DRB3_0101	207	QEFTEPEMWFVRQAH	FTEPEMWFV	0.2288	4205.2	32.00
DRB3_0101	289	VKFLSEQVLSRATER	FLSEQVLSR	0.2266	4306.4	32.00
DRB3_0101	189	TLGLLPEADAVLVVS	PEADAVLVV	0.2254	4361.2	32.00
DRB3_0101	23	VTQPDPRRVGVIVE	TQPDPRRV	0.2252	4374.9	32.00
DRB3_0101	425	AYQRSEALADDVARS	YQRSEALAD	0.2248	4393.4	32.00
DRB3_0101	22	TVTQPDPRRVGVIV	TQPDPRRV	0.2241	4427.2	32.00
DRB3_0101	216	FVRQAHQICPVGAVV	HQICPVGAV	0.2234	4456.6	32.00
DRB3_0101	488	GSYGGVVMIGMLSSV	VMIGMLSSV	0.2232	4468.9	32.00
DRB3_0101	493	VVMIGMLSSVGLGL	MIGMLSSV	0.2230	4480.3	32.00
DRB3_0101	452	ELSPHVMGTDFGRLK	MGTDFGRLK	0.2215	4552.8	32.00
DRB3_0101	260	IIAVSSLLRSHAVTL	LLRSHAVTL	0.2204	4606.1	32.00
DRB3_0101	556	KQSRDRLKMIQRLLR	QSRDRLKMI	0.2200	4625.0	32.00
DRB3_0101	555	SKQSRDRLKMIQRLL	QSRDRLKMI	0.2194	4655.5	32.00
DRB3_0101	491	GGVVMIGMLSSVGL	MIGMLSSV	0.2192	4664.3	32.00
DRB3_0101	471	MESKPLRRGHKMIIG	LRRGHKMI	0.2190	4677.5	32.00
DRB3_0101	190	LGLLPEADAVLVVSD	PEADAVLVV	0.2177	4740.0	32.00
DRB3_0101	454	SPHVMGTDFGRLKAL	MGTDFGRLK	0.2175	4753.3	32.00
DRB3_0101	494	VMIGMLSSVGLGLF	MLSSVGLG	0.2174	4757.0	32.00
DRB3_0101	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.2169	4782.4	32.00
DRB3_0101	313	RSATEQLAVSLGSEL	LAVSLGSEL	0.2165	4804.4	32.00
DRB3_0101	323	LGSELSVVNDPNLRD	SVVNDPNLR	0.2150	4884.2	32.00
DRB3_0101	547	VDDISFVVSKQSRDR	FVVSKQSRD	0.2150	4885.0	32.00
DRB3_0101	322	SLGSELSVVNDPNLR	SVVNDPNLR	0.2146	4904.2	32.00
DRB3_0101	316	TEQLAVSLGSELSV	LAVSLGSEL	0.2142	4923.8	32.00
DRB3_0101	440	FADAGLDSVLSAELS	FADAGLDSV	0.2141	4931.2	32.00
DRB3_0101	453	LSPHVMGTDFGRLKA	MGTDFGRLK	0.2125	5015.6	32.00
DRB3_0101	317	EQLAVSLGSELSVVN	LAVSLGSEL	0.2118	5054.8	32.00
DRB3_0101	261	IIAVSSLLRSHAVTLN	LLRSHAVTL	0.2116	5063.8	32.00
DRB3_0101	490	YGGVVMIGMLSSVVG	MIGMLSSV	0.2115	5068.9	32.00
DRB3_0101	318	QLAVSLGSELSVVND	LAVSLGSEL	0.2104	5130.6	32.00
DRB3_0101	208	EFTEPEMWFVRQAHQ	FTEPEMWFV	0.2104	5133.7	32.00
DRB3_0101	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.2100	5152.5	32.00
DRB3_0101	314	SATEQLAVSLGSELS	LAVSLGSEL	0.2098	5165.4	32.00
DRB3_0101	548	DDISFVVSKQSRDRL	FVVSKQSRD	0.2092	5201.6	32.00
DRB3_0101	396	SCDPTAHWAEIGNDV	HWAEIGNDV	0.2089	5216.9	32.00
DRB3_0101	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.2074	5303.2	32.00
DRB3_0101	397	CDPTAHWAEIGNDVE	HWAEIGNDV	0.2074	5303.9	32.00
DRB3_0101	411	ENAIATAVGDNFVWA	AVGDNFVWA	0.2072	5312.2	32.00
DRB3_0101	354	VQQTALWQQVLGDGF	WQQVLGDGF	0.2070	5321.8	32.00
DRB3_0101	557	QSRDRLKMIQRLLRD	QSRDRLKMI	0.2055	5414.3	50.00
DRB3_0101	477	RRGHKMIIGMRGSYG	MIIGMRGSY	0.2054	5418.6	50.00
DRB3_0101	472	ESKPLRRGHKMIIGM	LRRGHKMI	0.2052	5428.9	50.00
DRB3_0101	131	AVDIPVDDISTDVR	PVDDISTDV	0.2040	5502.4	50.00
DRB3_0101	324	GSELSVVNDPNLRDR	SVVNDPNLR	0.2037	5519.1	50.00
DRB3_0101	570	RDHYREIAEETRSL	HYREIAEEI	0.2025	5591.9	50.00
DRB3_0101	44	AIAKLNERGDLVQRL	KLNERGDLV	0.2018	5632.8	50.00
DRB3_0101	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.2016	5647.1	50.00
DRB3_0101	65	ITDPQVRVVIAGLLK	VRVVIAGLL	0.2014	5654.8	50.00
DRB3_0101	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.2012	5667.5	50.00
DRB3_0101	399	PTAHWAEIGNDVENA	HWAEIGNDV	0.2010	5679.5	50.00
DRB3_0101	478	RGHKMIIGMRGSYGG	MIIGMRGSY	0.2005	5710.8	50.00
DRB3_0101	455	PHVMGTDFGRLKALG	MGTDFGRLK	0.1984	5844.0	50.00
DRB3_0101	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.1983	5849.2	50.00
DRB3_0101	191	GLLPEADAVLVVSDT	PEADAVLVV	0.1980	5867.6	50.00
DRB3_0101	456	HVMGTDFGRLKALGR	MGTDFGRLK	0.1976	5893.7	50.00
DRB3_0101	356	QTALWQQVLGDGFND	WQQVLGDGF	0.1976	5894.8	50.00
DRB3_0101	398	DPTAHWAEIGNDVEN	HWAEIGNDV	0.1975	5897.8	50.00
DRB3_0101	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.1974	5904.7	50.00
DRB3_0101	355	QQTALWQQVLGDGFN	WQQVLGDGF	0.1973	5911.8	50.00
DRB3_0101	128	TTAAVDIPVDDISTD	AAVDIPVDD	0.1962	5981.5	50.00
DRB3_0101	45	IAKLNERGDLVQRLT	KLNERGDLV	0.1948	6073.9	50.00

DRB3_0101	290	KFLSEQVLSRATERV	FLSEQVLSR	0.1943	6109.3	50.00
DRB3_0101	495	MIGMLSSVVGLGLFN	MIGMLSSVV	0.1937	6149.2	50.00
DRB3_0101	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.1936	6158.4	50.00
DRB3_0101	79	KATGSQLLNSLLNLP	LLNSLLNLP	0.1919	6271.9	50.00
DRB3_0101	187	SATLGLLPEADAVLV	LLPEADAVL	0.1917	6285.3	50.00
DRB3_0101	28	DPRRVGVIVELIDHT	VIVELIDHT	0.1913	6307.1	50.00
DRB3_0101	457	VMGTDFGRLKALGRM	MGTFDFGRLK	0.1913	6312.7	50.00
DRB3_0101	194	PEADAVLVVSDTSQE	LVVSDTSQE	0.1907	6350.6	50.00
DRB3_0101	571	DHYREIAEEITRSLT	HYREIAEEI	0.1891	6464.9	50.00
DRB3_0101	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.1885	6503.2	50.00
DRB3_0101	133	DIPVDDISTDVRRAP	PVDDISTDV	0.1884	6513.0	50.00
DRB3_0101	479	GHKMIIGMRGSYGGV	MIIGMRGSY	0.1883	6521.5	50.00
DRB3_0101	46	AKLNERGDLVQRLTR	KLNERGDLV	0.1881	6532.7	50.00
DRB3_0101	132	VDIPVDDISTDVRRA	PVDDISTDV	0.1877	6562.7	50.00
DRB3_0101	325	SELSVNDPNLRDRL	SVVNDPNLR	0.1872	6594.2	50.00
DRB3_0101	60	RARQRITDPQVRVVI	RITDPQVRV	0.1868	6626.6	50.00
DRB3_0101	569	LRDHYREIAEEITRS	HYREIAEEI	0.1844	6798.7	50.00
DRB3_0101	328	SVVNDPNLRDRLASD	SVVNDPNLR	0.1842	6815.6	50.00
DRB3_0101	59	TRARQRITDPQVRVV	RITDPQVRV	0.1842	6816.1	50.00
DRB3_0101	291	FLSEQVLSRATERVR	FLSEQVLSR	0.1841	6820.3	50.00
DRB3_0101	80	QGKSQLLNSLLNLP	LLNSLLNLP	0.1841	6820.5	50.00
DRB3_0101	549	DISFVVSQSRDRLK	FVVSQSRD	0.1840	6825.9	50.00
DRB3_0101	473	SKPLRRGHKMIIGMR	LRRGHKMII	0.1839	6837.6	50.00
DRB3_0101	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.1817	6997.9	50.00
DRB3_0101	217	VQQAHCICPVGAVVA	HQICPVGAV	0.1812	7039.5	50.00
DRB3_0101	166	LRGGLAFIDTPGVGG	FIDTPGVGG	0.1812	7039.6	50.00
DRB3_0101	326	ELSVVNDPNLRDRLA	SVVNDPNLR	0.1805	7089.4	50.00
DRB3_0101	58	LTRARQRITDPQVRV	RITDPQVRV	0.1802	7115.6	50.00
DRB3_0101	152	REVLRVEVGAPSPLL	VEVGAPSPL	0.1792	7193.7	50.00
DRB3_0101	202	VSDTSQEFTEPEMWF	EFTTEPEMWF	0.1776	7321.9	50.00
DRB3_0101	474	KPLRRGHKMIIGMRG	LRRGHKMII	0.1765	7408.2	50.00
DRB3_0101	61	ARQRITDPQVRVVIA	RITDPQVRV	0.1760	7445.5	50.00
DRB3_0101	192	LLPEADAVLVVSDTS	PEADAVLVV	0.1753	7502.3	50.00
DRB3_0101	134	IPVDDISTDVRRAAPH	PVDDISTDV	0.1751	7515.7	50.00
DRB3_0101	165	LLRGGLAFIDTPGVG	AFIDTPGVG	0.1745	7570.9	50.00
DRB3_0101	327	LGSVNDPNLRDRLAS	SVVNDPNLR	0.1739	7617.4	50.00
DRB3_0101	81	KVQVLLNSLLNLPAA	LLNSLLNLP	0.1735	7649.3	50.00
DRB3_0101	90	LNLPAARVGDDEATV	RVGDDEATV	0.1735	7652.3	50.00
DRB3_0101	47	KLNERGDLVQRLTRA	KLNERGDLV	0.1731	7679.9	50.00
DRB3_0101	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.1728	7706.9	50.00
DRB3_0101	538	EAKANVRRFVDDISF	NVRRFVDDI	0.1725	7731.0	50.00
DRB3_0101	179	GGLGQPHLSATLGLL	HLSATLGLL	0.1722	7755.4	50.00
DRB3_0101	572	DHYREIAEEITRSLTE	HYREIAEEI	0.1712	7845.2	50.00
DRB3_0101	66	TRDQVRVVIAGLLKQ	VRVVIAGLL	0.1711	7851.5	50.00
DRB3_0101	62	RQRITDPQVRVVIAG	RITDPQVRV	0.1708	7879.2	50.00
DRB3_0101	283	SNFPAIVKFLSEQVL	VKFLSEQVL	0.1704	7913.7	50.00
DRB3_0101	612	QLGILSQVNDNLAGL	QVNDNLAGL	0.1698	7963.3	50.00
DRB3_0101	230	VATKTDLYPRWREIV	LYPRWREIV	0.1688	8051.6	50.00
DRB3_0101	98	GDDEATVVITVVSYS	VVITVVSYS	0.1686	8064.7	50.00
DRB3_0101	63	QRITDPQVRVVIAGL	RITDPQVRV	0.1683	8095.3	50.00
DRB3_0101	151	GREVLRVEVGAPSPL	VEVGAPSPL	0.1676	8158.3	50.00
DRB3_0101	126	DGTTAAVDIPVDDIS	AAVDIPVDD	0.1674	8168.8	50.00
DRB3_0101	125	PDGTTAAVDIPVDDI	AAVDIPVDD	0.1673	8177.2	50.00
DRB3_0101	550	ISFVVSQSRDRLKLM	FVVSQSRD	0.1669	8221.3	50.00
DRB3_0101	218	RQAHCICPVGAVVAT	HQICPVGAV	0.1667	8230.4	50.00
DRB3_0101	167	RGGLAFIDTPGVGGL	FIDTPGVGG	0.1662	8277.4	50.00
DRB3_0101	613	LGILSQVNDNLAGLE	QVNDNLAGL	0.1659	8303.9	50.00
DRB3_0101	410	VENAIATAVGDNFVW	IATAVGDNF	0.1658	8319.3	50.00
DRB3_0101	458	MGTFDFGRLKALGRME	MGTFDFGRLK	0.1646	8425.4	50.00
DRB3_0101	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.1635	8528.1	50.00
DRB3_0101	284	NFPAIVKFLSEQVLS	VKFLSEQVL	0.1632	8549.9	50.00
DRB3_0101	127	GTAAVDIPVDDIST	AAVDIPVDD	0.1619	8675.2	50.00
DRB3_0101	186	LSATLGLLPEADAVL	LLPEADAVL	0.1612	8739.3	50.00
DRB3_0101	475	PLRRGHKMIIGMRGS	LRRGHKMII	0.1601	8843.4	50.00
DRB3_0101	99	DDEATVVITVVSYS	VVITVVSYS	0.1600	8852.8	50.00
DRB3_0101	41	HTIAIAKLNERGDLV	KLNERGDLV	0.1599	8864.1	50.00
DRB3_0101	124	GPDGTTAAVDIPVDD	AAVDIPVDD	0.1590	8954.9	50.00
DRB3_0101	231	ATKTDLYPRWREIVN	LYPRWREIV	0.1589	8958.4	50.00
DRB3_0101	135	PVDDISTDVRRAPHA	PVDDISTDV	0.1583	9019.8	50.00
DRB3_0101	153	EVLRVEVGAPSPLL	VEVGAPSPL	0.1577	9077.8	50.00

DRB3_0101	320	AVSLGSELSVVNDPN	SLGSELSVV	0.1570	9143.0	50.00
DRB3_0101	83	SQLLNLSLLNLPAARV	LLNLPAARV	0.1567	9180.3	50.00
DRB3_0101	605	RIRELQRQLGILSQV	RQLGILSQV	0.1559	9256.5	50.00
DRB3_0101	487	RGSYGGVVMIGMLSS	YGGVVMIGM	0.1555	9295.5	50.00
DRB3_0101	408	NDVENAIATAVGDNF	VENAIATAV	0.1553	9317.6	50.00
DRB3_0101	42	TIAIAKLNREGDLVQ	KLNERGDLV	0.1552	9328.7	50.00
DRB3_0101	321	VSLGSELSVVNDPNL	SLGSELSVV	0.1549	9351.2	50.00
DRB3_0101	497	GMLSSVVGLGLFNPL	MLSSVVGLG	0.1545	9394.0	50.00
DRB3_0101	614	GILSQVNDNLAGLEP	QVNDNLAGL	0.1542	9431.3	50.00
DRB3_0101	164	QLLRGGLAFIDTPGV	LAFIDTPGV	0.1539	9455.8	50.00
DRB3_0101	219	PAAHQICPVGAVVATK	HQICPVGAV	0.1529	9561.7	50.00
DRB3_0101	193	LPEADAVLVVSDTSQ	PEADAVLVV	0.1529	9564.8	50.00
DRB3_0101	409	DVENAIATAVGDNFV	VENAIATAV	0.1526	9587.2	50.00
DRB3_0101	302	ERVVRAGVLGEIRSAT	VLGEIRSAT	0.1521	9642.1	50.00
DRB3_0101	306	AGVLGEIRSATEQLA	IRSATEQLA	0.1514	9718.3	50.00
DRB3_0101	180	GLGQPHLSATLGLLP	HLSATLGLL	0.1506	9802.0	50.00
DRB3_0101	82	KSQLLNSLLNLPAAAR	LLNSLLNLP	0.1505	9809.8	50.00
DRB3_0101	265	SLLRSHAVTLNDKEL	LLRSHAVTL	0.1500	9864.6	50.00
DRB3_0101	43	IAIAKLNREGDLVQR	KLNERGDLV	0.1498	9886.2	50.00
DRB3_0101	255	RVPMPPIIAVSSLLRS	PIIAVSSLL	0.1495	9916.2	50.00
DRB3_0101	254	ARVPMPPIIAVSSLLR	PIIAVSSLL	0.1495	9917.1	50.00
DRB3_0101	168	GGLAFIDTPGVGGGLG	FIDTPGVGG	0.1495	9920.3	50.00
DRB3_0101	307	GVLGEIRSATEQLAV	IRSATEQLA	0.1490	9971.1	50.00
DRB3_0101	67	DPQVRVVIAGLLKQG	VRVVIAGLL	0.1483	10051.5	50.00
DRB3_0101	253	RARVPMPPIIAVSSLL	PIIAVSSLL	0.1482	10054.9	50.00
DRB3_0101	232	TKTDLYPRWREIVNA	LYPRWREIV	0.1478	10105.2	50.00
DRB3_0101	610	QRQLGILSQVNDNLA	GILSQVNDN	0.1477	10112.6	50.00
DRB3_0101	0	MVPAGLCAYRDLRRK	MVPAGLCAY	0.1474	10146.5	50.00
DRB3_0101	609	LQRQLGILSQVNDNL	GILSQVNDN	0.1467	10220.6	50.00
DRB3_0101	160	GVRSPLLRGGLAFID	LLRGGLAFI	0.1467	10229.3	50.00
DRB3_0101	303	RAPAGVLGEIRSATE	VLGEIRSAT	0.1465	10244.3	50.00
DRB3_0101	84	QLLNLSLLNLPAARVG	LLNLPAARV	0.1461	10288.7	50.00
DRB3_0101	611	RQLGILSQVNDNLAG	GILSQVNDN	0.1457	10337.3	50.00
DRB3_0101	308	VLGEIRSATEQLAVS	IRSATEQLA	0.1456	10349.1	50.00
DRB3_0101	220	AHQICPVGAVVATKT	HQICPVGAV	0.1453	10375.7	50.00
DRB3_0101	496	IGMLSSVVGLGLFNP	MLSSVVGLG	0.1452	10389.7	50.00
DRB3_0101	100	DEATVSSVTVVSYSAQ	VITVVSYS	0.1447	10445.2	50.00
DRB3_0101	154	VLRVEVGAPSPLLRG	VEVGAPSPL	0.1441	10519.4	50.00
DRB3_0101	561	RLKMIQRLLRDHYRE	IQRLLRDHY	0.1438	10552.0	50.00
DRB3_0101	298	SRATERVRAGVLGEI	VRAGVLGEI	0.1426	10685.6	50.00
DRB3_0101	559	RDRLKMIQRLLRDHY	IQRLLRDHY	0.1426	10686.7	50.00
DRB3_0101	443	AGLDSVLSAELSPHV	LSAELSPHV	0.1421	10750.3	50.00
DRB3_0101	259	PIIAVSSLLRSHAVT	SSLRSHAV	0.1419	10769.3	50.00
DRB3_0101	441	ADAGLDSVLSAELSP	AGLDSVLSA	0.1419	10771.6	50.00
DRB3_0101	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.1418	10782.1	50.00
DRB3_0101	608	ELQRQLGILSQVNDN	GILSQVNDN	0.1404	10947.6	50.00
DRB3_0101	606	IRELQRQLGILSQVN	RQLGILSQV	0.1396	11035.1	50.00
DRB3_0101	101	EATVVITVVSYSQAQ	VITVVSYS	0.1396	11037.6	50.00
DRB3_0101	258	MPIIAVSSLLRSHAV	SSLRSHAV	0.1389	11128.7	50.00
DRB3_0101	233	KTDLYPRWREIVNAN	LYPRWREIV	0.1382	11209.8	50.00
DRB3_0101	304	VRAGVLGEIRSATEQ	VLGEIRSAT	0.1379	11241.5	50.00
DRB3_0101	68	PQVRVVIAGLLKQGK	VRVVIAGLL	0.1373	11320.9	50.00
DRB3_0101	299	RATERVRAGVLGEIR	VRAGVLGEI	0.1370	11355.5	50.00
DRB3_0101	256	VPMPPIIAVSSLLRSH	PIIAVSSLL	0.1366	11409.3	50.00
DRB3_0101	537	SEAKPNVRRFVDDIS	NVRRFVDDI	0.1363	11439.4	50.00
DRB3_0101	181	LGQPHLSATLGLLPE	LSATLGLL	0.1359	11487.2	50.00
DRB3_0101	505	LGLFNPLSVGAGLIL	LSVGAGLIL	0.1358	11498.7	50.00
DRB3_0101	560	DRLKMIQRLLRDHYR	IQRLLRDHY	0.1354	11548.8	50.00
DRB3_0101	161	APSPLLRGGLAFIDT	LLRGGLAFI	0.1354	11549.8	50.00
DRB3_0101	221	HQICPVGAVVATKTD	HQICPVGAV	0.1351	11597.3	50.00
DRB3_0101	309	LGEIRSATEQLAVSL	IRSATEQLA	0.1349	11612.6	50.00
DRB3_0101	185	HLSATLGLLPEADAV	GLLPEADAV	0.1341	11723.5	50.00
DRB3_0101	105	VITVVSYSQAQPSARL	YSAQPSARL	0.1339	11740.6	50.00
DRB3_0101	27	DDPRRVGVIVELIDH	RVGVIVELI	0.1337	11765.0	50.00
DRB3_0101	329	VVNDPNLRDRLASDL	LRDRLASDL	0.1333	11814.8	50.00
DRB3_0101	282	ESNFPAIVKFLSEQV	IVKFLSEQV	0.1332	11830.7	50.00
DRB3_0101	102	ATVVITVVSYSQAQPS	VITVVSYS	0.1331	11848.3	50.00
DRB3_0101	25	QPDDPRRVGVIVELI	RVGVIVELI	0.1318	12007.9	50.00
DRB3_0101	69	QVRVVIAGLLKQGKS	VRVVIAGLL	0.1312	12097.5	50.00
DRB3_0101	377	HDLRTRFRFTVTEDAE	FRTVTEDAE	0.1310	12113.3	50.00

DRB3_0101	26	PDDPRRVGVIVELID	RVGVIVELI	0.1308	12142.9	50.00
DRB3_0101	106	ITVVSYSQAQPSARLV	YSAQPSARL	0.1308	12146.2	50.00
DRB3_0101	107	TVVSYSQAQPSARLVL	YSAQPSARL	0.1306	12168.2	50.00
DRB3_0101	169	GLAFIDTPGVGGLGQ	FIDTPGVGG	0.1301	12235.5	50.00
DRB3_0101	607	RELQRQLGILSQVND	RQLGILSQV	0.1297	12285.5	50.00
DRB3_0101	85	LLNSLLNLPAARVGD	LLNLPAARV	0.1296	12308.7	50.00
DRB3_0101	615	ILSQVNDNLAGLEPT	QVNDNLAGL	0.1294	12325.1	50.00
DRB3_0101	234	TDLYPRWREIVNANA	LYPRWREIV	0.1294	12328.3	50.00
DRB3_0101	300	ATERVRAGVLGEIRS	VRAGVLGEI	0.1286	12440.9	50.00
DRB3_0101	442	DAGLLDSVLSAELSPH	AGLDSVLSA	0.1286	12441.4	50.00
DRB3_0101	162	PSPLLRGGLAFIDTP	LRGGLAFI	0.1282	12490.8	50.00
DRB3_0101	103	TVVITVVSYSQAQPSA	VITVVSYSA	0.1281	12497.4	50.00
DRB3_0101	48	LNERGDLVQRLTRAR	ERGDLVQRL	0.1280	12519.5	50.00
DRB3_0101	275	NDKELNEESNFPAIV	EESNFPAIV	0.1276	12573.1	50.00
DRB3_0101	257	PMPPIAVSSLLRSHA	PPIAVSSLL	0.1275	12590.3	50.00
DRB3_0101	310	GEIRSATEQLAVSLG	IRSATEQLA	0.1266	12710.8	50.00
DRB3_0101	407	RNDVENAIATAVGDN	VENAIATAV	0.1265	12726.9	50.00
DRB3_0101	536	GSEAKANVRRFVDDI	NVRRFVDDI	0.1262	12762.1	50.00
DRB3_0101	498	MLSSVVGLGLFNPLS	MLSSVVGLG	0.1261	12777.3	50.00
DRB3_0101	444	GLDSVLSAELSPHVM	LSAELSPHV	0.1258	12815.5	50.00
DRB3_0101	574	REIAEEITRSLTESL	ITRSLTESL	0.1253	12886.6	50.00
DRB3_0101	506	GLFNPLSVGAGLILG	LSVGAGLIL	0.1250	12926.4	50.00
DRB3_0101	301	TERVRAGVLGEIRSA	VRAGVLGEI	0.1244	13010.0	50.00
DRB3_0101	279	LNEESNFPAIVKFLS	EESNFPAIV	0.1244	13015.9	50.00
DRB3_0101	311	EIRSATEQLAVSLGS	IRSATEQLA	0.1241	13056.0	50.00
DRB3_0101	49	NERGDLVQRLTRARQ	ERGDLVQRL	0.1240	13067.8	50.00
DRB3_0101	108	VVSYSQAQPSARLVLA	YSAQPSARL	0.1231	13200.0	50.00
DRB3_0101	499	LSSVVGLGLFNPLSV	LGLFNPLSV	0.1229	13234.2	50.00
DRB3_0101	603	DNRIRELQRQLGILS	LQRQLGILS	0.1227	13261.6	50.00
DRB3_0101	502	VVGLGLFNPLSVGAG	FNPLSVGAG	0.1222	13330.5	50.00
DRB3_0101	280	NEESNFPAIVKFLSE	EESNFPAIV	0.1221	13340.4	50.00
DRB3_0101	378	DLRTRFRTVTEDAER	FRTVTEDAE	0.1216	13409.6	50.00
DRB3_0101	330	VNDPNLRDRLASDL	LRDRLASDL	0.1210	13501.7	50.00
DRB3_0101	247	NAAHLQRARVPMPPI	RARVPMPPI	0.1208	13537.0	50.00
DRB3_0101	558	SRDRLKMIQRLLRDH	MIQRLLRDH	0.1206	13554.1	50.00
DRB3_0101	277	KELNEESNFPAIVKF	EESNFPAIV	0.1205	13578.4	50.00
DRB3_0101	235	LYPRWREIVNANAA	LYPRWREIV	0.1205	13580.6	50.00
DRB3_0101	433	ADDVARSFADAGLDS	VARSFADAG	0.1203	13610.7	50.00
DRB3_0101	182	GQPHLSATLGLLPEA	HLSATLGLL	0.1202	13625.6	50.00
DRB3_0101	40	DHTIAIAKLNERNGL	IAIAKLNER	0.1200	13645.5	50.00
DRB3_0101	155	LRVEVGAPSPLLRGG	VEVGAPSP	0.1198	13678.8	50.00
DRB3_0101	276	DKELNEESNFPAIVK	EESNFPAIV	0.1193	13751.0	50.00
DRB3_0101	159	VGAPSPLLRGGLAFI	LLRGGLAFI	0.1192	13766.8	50.00
DRB3_0101	70	VRVVIAGLLKQKGSQ	VRVVIAGLL	0.1192	13771.6	50.00
DRB3_0101	170	LAFIDTPGVGGLGQP	FIDTPGVGG	0.1186	13850.3	50.00
DRB3_0101	248	AAHLQRARVPMPPIA	RARVPMPPI	0.1181	13934.8	50.00
DRB3_0101	575	EIAEEITRSLTESLQ	ITRSLTESL	0.1175	14021.3	50.00
DRB3_0101	445	LDSVLSAELSPHVMG	LSAELSPHV	0.1171	14090.8	50.00
DRB3_0101	379	LRTRFRTVTEDAERQ	FRTVTEDAE	0.1168	14126.7	50.00
DRB3_0101	503	VGLGLFNPLSVGAGL	FNPLSVGAG	0.1163	14210.4	50.00
DRB3_0101	50	ERGDLVQRLTRARQR	ERGDLVQRL	0.1161	14238.1	50.00
DRB3_0101	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.1158	14280.5	50.00
DRB3_0101	109	VSYSQAQPSARLVLA	YSAQPSARL	0.1152	14371.2	50.00
DRB3_0101	149	AGGREVLRVEVGAPS	LRVEVGAPS	0.1145	14491.5	50.00
DRB3_0101	249	AHLQRARVPMPPIA	RARVPMPPI	0.1144	14505.9	50.00
DRB3_0101	331	NDPNLRDRLASDLER	LRDRLASDL	0.1141	14555.7	50.00
DRB3_0101	156	RVEVGAPSPLLRGGL	VEVGAPSP	0.1136	14631.5	50.00
DRB3_0101	573	YREIAEEITRSLTES	IAEEITRSL	0.1125	14796.4	50.00
DRB3_0101	281	EESNFPAIVKFLSEQ	EESNFPAIV	0.1125	14802.2	50.00
DRB3_0101	163	SPLLRGGLAFIDTPG	LLRGGLAFI	0.1125	14804.1	50.00
DRB3_0101	576	IAEEITRSLTESLQA	ITRSLTESL	0.1119	14906.2	50.00
DRB3_0101	604	NRIRELQRQLGILSQ	LQRQLGILS	0.1114	14981.0	50.00
DRB3_0101	333	PNLRDRLASDLERRK	LRDRLASDL	0.1109	15061.7	50.00
DRB3_0101	507	LFNPLSVGAGLILGR	LSVGAGLIL	0.1107	15089.1	50.00
DRB3_0101	334	NLRDRLASDLERRKR	LRDRLASDL	0.1103	15153.9	50.00
DRB3_0101	183	QPHLSATLGLLPEAD	HLSATLGLL	0.1103	15166.3	50.00
DRB3_0101	616	LSQVNDNLAGLEPTL	QVNDNLAGL	0.1101	15184.1	50.00
DRB3_0101	104	VVITVVSYSQAQPSAR	VVITVVSYS	0.1100	15202.8	50.00
DRB3_0101	157	VEVGAPSPLLRGGLA	VEVGAPSP	0.1090	15367.2	50.00
DRB3_0101	236	LYPRWREIVNANAHA	LYPRWREIV	0.1090	15378.7	50.00

DRB3_0101	340	ASDLERRKREAQQAV	RKREAQQAV	0.1087	15421.1	50.00
DRB3_0101	250	HLQRRVPMPIIAVS	RARVPMPII	0.1085	15449.2	50.00
DRB3_0101	38	LIDHTIAIAKLNERG	IAIAKLNER	0.1082	15504.6	50.00
DRB3_0101	305	RAGVLGEIRSATEQL	VLGEIRSAT	0.1079	15560.4	50.00
DRB3_0101	110	SYSAQPSARLVLAAG	YSAQPSARL	0.1070	15702.3	50.00
DRB3_0101	150	GGREVLRVEVGAPSP	LRVEVGAPS	0.1068	15749.6	50.00
DRB3_0101	278	ELNEESNFPAIVKFL	EESNFPAIV	0.1068	15752.5	50.00
DRB3_0101	184	PHLSATLGLLPEADA	HLSATLGLL	0.1058	15912.2	50.00
DRB3_0101	312	IRSATEQLAVSLGSE	IRSATEQLA	0.1057	15937.5	50.00
DRB3_0101	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.1055	15974.8	50.00
DRB3_0101	238	PRWREIVNANAHLQ	VNANAHLQ	0.1046	16117.3	50.00
DRB3_0101	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.1041	16205.3	50.00
DRB3_0101	446	DSVLSAELSPHVMGT	LSAELSPHV	0.1032	16370.4	50.00
DRB3_0101	341	SDLERRKREAQQAVQ	RKREAQQAV	0.1018	16613.6	50.00
DRB3_0101	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.1015	16671.6	50.00
DRB3_0101	332	DPNLRDLASDLERR	LRDRLASDL	0.1012	16722.7	50.00
DRB3_0101	239	RWREIVNANAHLQR	VNANAHLQ	0.0998	16977.2	50.00
DRB3_0101	617	SQVNDNLAGLEPTLT	VNNDNLAGL	0.0993	17070.3	50.00
DRB3_0101	535	VRSEAKANVRRFVDD	AKANVRRFV	0.0987	17183.9	50.00
DRB3_0101	86	LNSLLNLPAARVGDD	LLNLPAARV	0.0986	17213.1	50.00
DRB3_0101	111	YSAQPSARLVLAAGP	YSAQPSARL	0.0985	17221.1	50.00
DRB3_0101	533	LRVRSEAKANVRRFV	AKANVRRFV	0.0985	17223.9	50.00
DRB3_0101	578	EEITRSLTESLQATI	ITRSLTESL	0.0981	17291.1	50.00
DRB3_0101	534	RVRSEAKANVRRFVD	AKANVRRFV	0.0979	17326.7	50.00
DRB3_0101	246	ANAHLQRARVPMPI	LQRARVPMPI	0.0978	17356.5	50.00
DRB3_0101	447	SVLSAELSPHVMGTD	LSAELSPHV	0.0975	17409.9	50.00
DRB3_0101	39	IDHTIAIAKLNERGD	IAIAKLNER	0.0973	17452.7	50.00
DRB3_0101	335	LRDRLASDLERRKRE	LRDRLASDL	0.0971	17479.0	50.00
DRB3_0101	342	DLERRKREAQQAVQQ	RKREAQQAV	0.0954	17818.1	50.00
DRB3_0101	448	VLSAELSPHVMGTDF	LSAELSPHV	0.0948	17932.0	50.00
DRB3_0101	599	ETERDNRIRELQRQL	RIRELQRQL	0.0944	18012.9	50.00
DRB3_0101	618	QVNDNLAGLEPTLTP	QVNDNLAGL	0.0943	18024.6	50.00
DRB3_0101	136	VDDISTDVRRAPHAG	ISTDVRRAP	0.0942	18043.6	50.00
DRB3_0101	273	TLNDKELNEESNFPA	KELNEESNF	0.0938	18131.4	50.00
DRB3_0101	577	AEEITRSLTESLQAT	ITRSLTESL	0.0930	18280.2	50.00
DRB3_0101	271	AVTLNDKELNEESNF	KELNEESNF	0.0925	18382.7	50.00
DRB3_0101	87	NLSLLNLPAARVGDDE	LLNLPAARV	0.0924	18396.8	50.00
DRB3_0101	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.0921	18458.2	50.00
DRB3_0101	171	AFIDTPGVGGLGQPH	AFIDTPGVG	0.0919	18495.0	50.00
DRB3_0101	579	EITRSLTESLQATIA	ITRSLTESL	0.0914	18604.6	50.00
DRB3_0101	602	RDNRIRELQRQLGIL	RIRELQRQL	0.0912	18630.0	50.00
DRB3_0101	272	VTLNDKELNEESNFPA	KELNEESNF	0.0910	18678.6	50.00
DRB3_0101	274	INDKELNEESNFPAI	KELNEESNF	0.0903	18812.3	50.00
DRB3_0101	173	LDTPGVGGGLGQPHLS	GGLGQPHLS	0.0899	18897.3	50.00
DRB3_0101	88	SLLNLPAARVGDDEA	LLNLPAARV	0.0898	18917.2	50.00
DRB3_0101	459	GTFDFGRLKALGRMES	FGRLKALGR	0.0898	18930.7	50.00
DRB3_0101	343	LERRKREAQQAVQQT	RKREAQQAV	0.0889	19104.6	50.00
DRB3_0101	601	ERDNRIRELQRQLGI	RIRELQRQL	0.0886	19171.9	50.00
DRB3_0101	353	AVQQTALWQQVLGDG	LWQQVLGDG	0.0886	19172.5	50.00
DRB3_0101	267	LRRSHATLNDKELNE	VTLNDKELN	0.0884	19204.3	50.00
DRB3_0101	251	LQRARVPMPIIAVSS	RARVPMPII	0.0884	19213.8	50.00
DRB3_0101	510	PLSVGAGLILGRMAY	LSVGAGLIL	0.0881	19266.9	50.00
DRB3_0101	237	YPRWREIVNANAHL	IVNANAHL	0.0880	19296.1	50.00
DRB3_0101	449	LSAELSPHVMGTDFG	LSAELSPHV	0.0878	19334.4	50.00
DRB3_0101	600	TERDNRIRELQRQLG	RIRELQRQL	0.0872	19472.9	50.00
DRB3_0101	1	VPAGLCAYRDLRRKR	AYRDLRRKR	0.0862	19664.5	50.00
DRB3_0101	89	LLNLPAARVGDDEAT	LLNLPAARV	0.0862	19668.8	50.00
DRB3_0101	13	RKRARKWGDTVTPQPD	WGDTVTPQPD	0.0861	19697.3	50.00
DRB3_0101	240	WREIVNANAHLQRA	VNANAHLQ	0.0856	19798.2	50.00
DRB3_0101	460	TDFGRLKALGRMESK	FGRLKALGR	0.0856	19805.7	50.00
DRB3_0101	245	NANAHLQRARVPMPI	LQRARVPMPI	0.0848	19971.6	50.00
DRB3_0101	580	ITRSLTESLQATIAA	ITRSLTESL	0.0840	20140.9	50.00
DRB3_0101	252	QRARVPMPIIAVSSL	RARVPMPII	0.0837	20207.0	50.00
DRB3_0101	346	RKREAQQAVQQTALW	RKREAQQAV	0.0835	20254.9	50.00
DRB3_0101	14	KRARKWGDTVTPQDD	WGDTVTPQPD	0.0834	20285.2	50.00
DRB3_0101	9	RDLRRKRARKWGDTV	LRRKRARKW	0.0831	20352.5	50.00
DRB3_0101	344	ERRKREAQQAVQQT	RKREAQQAV	0.0829	20381.8	50.00
DRB3_0101	2	PAGLCAYRDLRRKRA	AYRDLRRKR	0.0829	20386.6	50.00
DRB3_0101	178	VGGLGQPHLSATLGL	GGLGQPHLS	0.0816	20682.6	50.00
DRB3_0101	595	AQVAETERDNRIREL	AETERDNR	0.0813	20742.0	50.00

DRB3_0101	10	DLRRKRARKWGDTVT	LRRKRARKW	0.0812	20760.6	50.00
DRB3_0101	345	RRKREAQQAVQQTAL	RKREAQQAV	0.0812	20779.7	50.00
DRB3_0101	268	RSHAVTLNDKELNEE	VTLNDKELN	0.0810	20815.2	50.00
DRB3_0101	295	QVLSRATERVRAGVL	TERVRAGVL	0.0809	20826.3	50.00
DRB3_0101	174	DTPGVGGGLGQPPLSA	GGLGQPPLS	0.0809	20840.5	50.00
DRB3_0101	175	TPGVGGGLGQPPLSAT	GGLGQPPLS	0.0804	20939.0	50.00
DRB3_0101	7	AYRDLRRKRARKWGD	LRRKRARKW	0.0802	20987.1	50.00
DRB3_0101	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.0799	21055.8	50.00
DRB3_0101	15	RARKWGDTVTQPDDP	WGDTVTQPD	0.0794	21182.9	50.00
DRB3_0101	451	AELSPHVMGTFDFGRL	VMGTFDFGRL	0.0792	21219.6	50.00
DRB3_0101	176	PGVGGGLGQPPLSATL	GGLGQPPLS	0.0788	21309.5	50.00
DRB3_0101	57	RLTRARQRITDPQVR	RQRITDPQV	0.0787	21337.9	50.00
DRB3_0101	352	QAVQQTALWQQVLGD	QAVQQTALW	0.0786	21367.7	50.00
DRB3_0101	241	REIVNANA AHLQRAR	VNANA AHLQ	0.0785	21380.2	50.00
DRB3_0101	296	VLSRATERVRAGVLG	TERVRAGVL	0.0778	21554.9	50.00
DRB3_0101	5	LCAYRDLRRKRARKW	LRRKRARKW	0.0776	21587.3	50.00
DRB3_0101	592	IAAAQVAETERDNRI	AETERDNRI	0.0775	21624.0	50.00
DRB3_0101	512	SVGAGLILGRMAYKE	ILGRMAYKE	0.0773	21661.0	50.00
DRB3_0101	242	EIVNANA AHLQRARV	VNANA AHLQ	0.0771	21715.7	50.00
DRB3_0101	461	DFGRLKALGRMESKP	FGRLKALGR	0.0766	21817.4	50.00
DRB3_0101	123	AGPDGTTAAVDIPVD	TTAAVDIPV	0.0766	21818.1	50.00
DRB3_0101	3	AGLCAYRDLRRKRAR	AYRDLRRKR	0.0759	21985.4	50.00
DRB3_0101	596	QVAETERDNRIRELQ	AETERDNRI	0.0759	22001.6	50.00
DRB3_0101	243	IVNANA AHLQRARVP	VNANA AHLQ	0.0758	22018.0	50.00
DRB3_0101	177	GVGGGLGQPPLSATLG	GGLGQPPLS	0.0756	22072.9	50.00
DRB3_0101	529	QNRLLRVRSEAKANV	VRSEAKANV	0.0751	22191.9	50.00
DRB3_0101	269	SHAVTLNDKELNEES	VTLNDKELN	0.0747	22287.2	50.00
DRB3_0101	6	CAYRDLRRKRARKWG	LRRKRARKW	0.0745	22331.1	50.00
DRB3_0101	11	LRRKRARKWGDTVTQ	LRRKRARKW	0.0740	22451.3	50.00
DRB3_0101	148	HAGGREVLRVEVGAP	GREVLREVEV	0.0739	22471.0	50.00
DRB3_0101	393	QIDSCDPTAHWAEIG	DSCDPTAHW	0.0739	22483.9	50.00
DRB3_0101	462	FGRLKALGRMESKPL	FGRLKALGR	0.0734	22588.2	50.00
DRB3_0101	597	VAETERDNRIRELQR	AETERDNRI	0.0734	22594.4	50.00
DRB3_0101	52	GDLVQRLTRARQRIT	LTRARQRIT	0.0733	22626.4	50.00
DRB3_0101	513	VGAGLILGRMAYKED	ILGRMAYKE	0.0730	22689.6	50.00
DRB3_0101	394	IDSCDPTAHWAEIGN	DSCDPTAHW	0.0730	22700.9	50.00
DRB3_0101	270	HAVTLNDKELNEESN	VTLNDKELN	0.0727	22778.4	50.00
DRB3_0101	292	LSEQVLSRATERVRA	LSRATERVR	0.0724	22852.0	50.00
DRB3_0101	119	LVLAAGPDGTTAAVD	AGPDGTTAA	0.0715	23078.1	50.00
DRB3_0101	530	NRLLRVRSEAKANVR	VRSEAKANV	0.0712	23140.9	50.00
DRB3_0101	137	DDISTDVRRAPHAGG	ISTDVRRAP	0.0708	23249.8	50.00
DRB3_0101	12	RRKRARKWGDTVTQP	RARKWGDTV	0.0705	23316.8	50.00
DRB3_0101	4	GLCAYRDLRRKRARK	AYRDLRRKR	0.0704	23347.1	50.00
DRB3_0101	336	DRLLASDLERRKREA	LASDLERRK	0.0703	23374.6	50.00
DRB3_0101	517	LILGRMAYKEDKQNR	ILGRMAYKE	0.0699	23468.4	50.00
DRB3_0101	115	PSARLVLAAGPDGTT	LAAGPDGTT	0.0699	23477.0	50.00
DRB3_0101	8	YRDLRRKRARKWGDT	LRRKRARKW	0.0697	23524.3	50.00
DRB3_0101	53	DLVQRLTRARQRITD	LTRARQRIT	0.0694	23602.4	50.00
DRB3_0101	117	ARLVLAAGPDGTTAA	AGPDGTTAA	0.0691	23679.6	50.00
DRB3_0101	619	QNDLAGLEPTLTTPR	LAGLEPTLT	0.0687	23769.2	50.00
DRB3_0101	56	VRDLTRARQRITDPQV	RQRITDPQV	0.0684	23858.1	50.00
DRB3_0101	594	AAQVAETERDNRIRE	AETERDNRI	0.0683	23879.3	50.00
DRB3_0101	244	VNANA AHLQRARVPM	VNANA AHLQ	0.0682	23916.8	50.00
DRB3_0101	138	DISTDVRRAPHAGGR	ISTDVRRAP	0.0678	24016.3	50.00
DRB3_0101	598	AETERDNRIRELQRQ	AETERDNRI	0.0675	24089.7	50.00
DRB3_0101	514	GAGLILGRMAYKEDK	ILGRMAYKE	0.0674	24106.9	50.00
DRB3_0101	122	AAGPDGTTAAVDIPV	AGPDGTTAA	0.0670	24226.2	50.00
DRB3_0101	531	RLLRVRSEAKANVRR	VRSEAKANV	0.0665	24339.9	50.00
DRB3_0101	586	ESLQATIAAAQVAET	IAAAQVAET	0.0658	24528.4	50.00
DRB3_0101	16	ARKWGDTVTQPDDPR	WGDTVTQPD	0.0657	24559.0	50.00
DRB3_0101	350	AQQAVQQTALWQQVL	QAVQQTALW	0.0656	24580.5	50.00
DRB3_0101	293	SEQLSRATERVRAG	LSRATERVR	0.0655	24612.4	50.00
DRB3_0101	581	TRVLSLQATIAAA	LQATIAAA	0.0654	24634.8	50.00
DRB3_0101	118	RLVLAAGPDGTTAAV	AGPDGTTAA	0.0654	24651.1	50.00
DRB3_0101	54	LVQRLTRARQRITDP	LTRARQRIT	0.0651	24733.6	50.00
DRB3_0101	532	LLRVRSEAKANVRRF	VRSEAKANV	0.0648	24811.1	50.00
DRB3_0101	222	QICPVGAVVATKTDL	AVVATKTDL	0.0647	24829.1	50.00
DRB3_0101	593	AAAQVAETERDNRI	AETERDNRI	0.0646	24857.3	50.00
DRB3_0101	516	GLILGRMAYKEDKQN	ILGRMAYKE	0.0644	24903.9	50.00
DRB3_0101	120	VLAAGPDGTTAAVDI	AGPDGTTAA	0.0644	24918.4	50.00

DRB3_0101	349	EAQQAVQQTALWQQV	QAVQQTALW	0.0643	24932.7	50.00
DRB3_0101	17	RKWGDTVTQPDDPRR	WGDTVTQPD	0.0642	24957.6	50.00
DRB3_0101	582	RSLTESLQATIAAAQ	LTESLQATI	0.0640	25030.6	50.00
DRB3_0101	116	SARLVLAAGPDGTTA	LAAGPDGTT	0.0639	25040.3	50.00
DRB3_0101	294	EQVLSRATERVRAGV	LSRATERVR	0.0639	25042.5	50.00
DRB3_0101	71	RVVIAGLLKQKSQL	LLKQKSQL	0.0639	25044.7	50.00
DRB3_0101	121	LAAGPDGTTAAVDIP	AGPDGTTAA	0.0635	25161.7	50.00
DRB3_0101	515	AGLILGRMAYKEDKQ	ILGRMAYKE	0.0628	25339.9	50.00
DRB3_0101	114	QPSARLVLAAGPDGT	VLAAGPDGT	0.0627	25373.9	50.00
DRB3_0101	351	QQAVQQTALWQQVLG	QAVQQTALW	0.0627	25374.7	50.00
DRB3_0101	297	LSRATERVRAGVLEGE	TERVRAGVL	0.0625	25429.7	50.00
DRB3_0101	376	DHDLRTRFRFTVTEDA	LRTRFRFTVT	0.0620	25562.9	50.00
DRB3_0101	587	SLQATIAAAQVAETE	IAAAQVAET	0.0620	25572.0	50.00
DRB3_0101	158	EVGAPSPLLRGGLAF	EVGAPSPLL	0.0609	25860.3	50.00
DRB3_0101	146	APHAGGREVLRVEVG	HAGGREVLR	0.0608	25908.8	50.00
DRB3_0101	147	PHAGGREVLRVEVGA	HAGGREVLR	0.0597	26205.1	50.00
DRB3_0101	622	NLAGLEPTLTTPRASL	LAGLEPTLT	0.0596	26236.5	50.00
DRB3_0101	583	SLTESLQATIAAAQV	SLTESLQAT	0.0591	26365.5	50.00
DRB3_0101	145	RAPHAGGREVLRVEV	GREVLRVEV	0.0584	26593.2	50.00
DRB3_0101	620	NDNLAGLEPTLTTPRA	LAGLEPTLT	0.0581	26659.8	50.00
DRB3_0101	55	VQRLTRARQRITDPQ	LTRARQRIT	0.0571	26943.1	50.00
DRB3_0101	623	LAGLEPTLTTPRASLG	LAGLEPTLT	0.0568	27057.6	50.00
DRB3_0101	337	FRLADLERRKREAQ	LADLERRK	0.0562	27226.2	50.00
DRB3_0101	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.0559	27311.1	50.00
DRB3_0101	621	DNLAGLEPTLTTPRAS	LAGLEPTLT	0.0559	27314.4	50.00
DRB3_0101	395	DSCDPTAHWAEIGND	DSCDPTAHW	0.0558	27345.7	50.00
DRB3_0101	450	SAELSPHVMGTFGR	HVMGTFGR	0.0556	27402.6	50.00
DRB3_0101	348	REAQQAVQQTALWQQ	QAVQQTALW	0.0550	27562.6	50.00
DRB3_0101	113	AQPSARLVLAAGPDG	LVLAAGPDG	0.0548	27634.5	50.00
DRB3_0101	584	LTESLQATIAAAQVA	LTESLQATI	0.0538	27934.3	50.00
DRB3_0101	527	DKQNRLLRVRSEAKA	LRVRSEAKA	0.0533	28080.0	50.00
DRB3_0101	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.0522	28421.1	50.00
DRB3_0101	463	GRLKALGRMESKPLR	GRMESKPLR	0.0520	28479.0	50.00
DRB3_0101	144	RRAPHAGGREVLRVE	HAGGREVLR	0.0514	28677.5	50.00
DRB3_0101	338	RLASDLERRKREAQQ	LASDLERRK	0.0510	28781.7	50.00
DRB3_0101	589	QATIAAAQVAETERD	IAAAQVAET	0.0510	28805.7	50.00
DRB3_0101	464	RLKALGRMESKPLRR	GRMESKPLR	0.0507	28888.0	50.00
DRB3_0101	590	ATIAAAQVAETERDN	IAAAQVAET	0.0505	28937.5	50.00
DRB3_0101	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.0504	28978.2	50.00
DRB3_0101	588	LQATIAAAQVAETER	IAAAQVAET	0.0497	29196.9	50.00
DRB3_0101	139	ISTDVRRAPHAGGRE	ISTDVRRAP	0.0485	29574.0	50.00
DRB3_0101	465	LKALGRMESKPLRRG	GRMESKPLR	0.0481	29703.2	50.00
DRB3_0101	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.0476	29889.3	50.00
DRB3_0101	591	TIAAAQVAETERDNR	IAAAQVAET	0.0471	30023.1	50.00
DRB3_0101	112	SAQPSARLVLAAGPD	SAQPSARLV	0.0471	30047.5	50.00
DRB3_0101	466	KALGRMESKPLRRGH	GRMESKPLR	0.0467	30153.0	50.00
DRB3_0101	143	VRRAPHAGGREVLRV	HAGGREVLR	0.0456	30525.9	50.00
DRB3_0101	467	ALGRMESKPLRRGHK	GRMESKPLR	0.0454	30602.3	50.00
DRB3_0101	525	KEDKQNRLLRVRSEA	DKQNRLLRV	0.0448	30793.3	50.00
DRB3_0101	339	LASDLERRKREAQQA	LASDLERRK	0.0426	31526.2	50.00
DRB3_0101	347	KREAQQAVQQTALWQ	QAVQQTALW	0.0423	31652.3	50.00
DRB3_0101	585	TESLQATIAAAQVAE	ATIAAAQVA	0.0415	31914.4	50.00
DRB3_0101	142	DVRRAPHAGGREVLR	HAGGREVLR	0.0408	32169.5	50.00
DRB3_0101	469	GRMESKPLRRGHKMI	GRMESKPLR	0.0399	32485.0	50.00
DRB3_0101	468	LGRMESKPLRRGHKM	GRMESKPLR	0.0396	32571.9	50.00
DRB3_0101	624	AGLEPTLTTPRASLGR	LEPTLTTPRA	0.0356	34034.3	50.00
DRB3_0101	625	GLEPTLTTPRASLGRA	LEPTLTTPRA	0.0328	35059.2	50.00
DRB3_0101	140	STDVRRAPHAGGREV	VRRAPHAGG	0.0231	38957.7	50.00
DRB3_0101	141	TDVRRAPHAGGREVL	VRRAPHAGG	0.0221	39347.4	50.00

Allele: DRB3_0101. Number of high binders 4. Number of weak binders 27. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
DRB4_0101	560	DRLKMIQRLLRDHYR	RLKMIQRLL	0.8248	6.7	SB	0.10
DRB4_0101	559	RDRLKMIQRLLRDHY	RLKMIQRLL	0.8207	7.0	SB	0.10
DRB4_0101	558	SRDRLKMIQRLLRDH	RLKMIQRLL	0.8050	8.2	SB	0.15

DRB4_0101	561	RLKMIQRLLRDHYRE	LKMIQRLLR	0.8035	8.4	SB	0.15
DRB4_0101	604	NRIRELQRQLGILSQ	IRELQRQLG	0.7920	9.5	SB	0.20
DRB4_0101	557	QSRDRLKMIQRLLRD	RLKMIQRLL	0.7875	10.0	SB	0.20
DRB4_0101	605	RIRELQRQLGILSQV	IRELQRQLG	0.7798	10.8	SB	0.30
DRB4_0101	603	DNRIRELQRQLGILS	IRELQRQLG	0.7762	11.3	SB	0.30
DRB4_0101	556	KQSRDRLKMIQRLLR	RLKMIQRLL	0.7593	13.5	SB	0.40
DRB4_0101	602	RDNRIRELQRQLGIL	IRELQRQLG	0.7509	14.8	SB	0.80
DRB4_0101	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.7334	17.9	SB	0.80
DRB4_0101	601	ERDNRIRELQRQLGI	IRELQRQLG	0.7211	20.4	SB	1.00
DRB4_0101	514	GAGLILGRMAYKEDK	GLILGRMAY	0.7097	23.1	SB	2.00
DRB4_0101	31	RVGVIVELIDHTIAI	GVIVELIDH	0.7096	23.1	SB	2.00
DRB4_0101	30	RRVGVIVELIDHTIA	GVIVELIDH	0.7092	23.2	SB	2.00
DRB4_0101	606	IRELQRQLGILSQVN	IRELQRQLG	0.7091	23.3	SB	2.00
DRB4_0101	256	VPMPPIIAVSSLLRSH	MPIIAVSSL	0.7038	24.6	SB	2.00
DRB4_0101	515	AGLILGRMAYKEDKQ	GLILGRMAY	0.7014	25.3	SB	2.00
DRB4_0101	513	VGAGLILGRMAYKED	GLILGRMAY	0.6968	26.6	SB	2.00
DRB4_0101	257	PMPPIIAVSSLLRSHA	MPIIAVSSL	0.6967	26.6	SB	2.00
DRB4_0101	254	ARVPMPPIIAVSSLLR	MPIIAVSSL	0.6944	27.3	SB	2.00
DRB4_0101	255	RVPMPPIIAVSSLLRS	MPIIAVSSL	0.6933	27.6	SB	2.00
DRB4_0101	32	VGIVELIDHTIAIAI	GVIVELIDH	0.6919	28.0	SB	2.00
DRB4_0101	600	TERDNRIRELQRQLG	IRELQRQLG	0.6879	29.3	SB	2.00
DRB4_0101	253	RARVPMPPIIAVSSLL	MPIIAVSSL	0.6827	31.0	SB	2.00
DRB4_0101	511	LSVAGLILGRMAYK	GLILGRMAY	0.6809	31.6	SB	2.00
DRB4_0101	33	GVIVELIDHTIAIAK	GVIVELIDH	0.6779	32.6	SB	2.00
DRB4_0101	512	SVGAGLILGRMAYKE	GLILGRMAY	0.6756	33.4	SB	4.00
DRB4_0101	258	MPIIAVSSLLRSHAV	MPIIAVSSL	0.6700	35.5	SB	4.00
DRB4_0101	555	SKQSRDRLKMIQRLL	DRLKMIQRL	0.6679	36.3	SB	4.00
DRB4_0101	288	IVKFLSEQVLSRATE	VKFLSEQVL	0.6613	39.0	SB	4.00
DRB4_0101	287	AIVKFLSEQVLSRAT	VKFLSEQVL	0.6594	39.9	SB	4.00
DRB4_0101	510	PAISVAGLILGRMAY	GLILGRMAY	0.6585	40.2	SB	4.00
DRB4_0101	286	PLIVKFLSEQVLSRA	VKFLSEQVL	0.6523	43.0	SB	4.00
DRB4_0101	29	PRRVGVIVELIDHTI	GVIVELIDH	0.6483	44.9	SB	4.00
DRB4_0101	68	PQVRVVIAGLLKQGK	VRVVIAGLL	0.6476	45.3	SB	4.00
DRB4_0101	67	DPQVRVVIAGLLKQG	VRVVIAGLL	0.6472	45.5	SB	4.00
DRB4_0101	285	FPAIVKFLSEQVLSR	VKFLSEQVL	0.6417	48.3	SB	4.00
DRB4_0101	252	QRARVPMPPIIAVSSL	MPIIAVSSL	0.6382	50.1	WB	4.00
DRB4_0101	491	GGVVMIGMLSSVVGL	VVMIGMLSS	0.6367	50.9	WB	4.00
DRB4_0101	66	TDPQVRVVIAGLLKQ	VRVVIAGLL	0.6343	52.3	WB	4.00
DRB4_0101	69	QVRVVIAGLLKQGKS	VRVVIAGLL	0.6234	58.8	WB	8.00
DRB4_0101	34	VIVELIDHTIAIAKL	VELIDHTIA	0.6175	62.7	WB	8.00
DRB4_0101	531	RLLRVRSEAKANVRR	LVRSEAKA	0.6169	63.1	WB	8.00
DRB4_0101	284	NFPAIVKFLSEQVLS	VKFLSEQVL	0.6159	63.8	WB	8.00
DRB4_0101	65	ITDPQVRVVIAGLLK	VRVVIAGLL	0.6143	64.9	WB	8.00
DRB4_0101	490	YGGVVMIGMLSSVVG	VVMIGMLSS	0.6138	65.3	WB	8.00
DRB4_0101	289	VKFLSEQVLSRATER	VKFLSEQVL	0.6112	67.2	WB	8.00
DRB4_0101	563	KMIQRLLRDHYREIA	IQRLLRDHY	0.6110	67.3	WB	8.00
DRB4_0101	530	NRLLRVRSEAKANVR	LVRSEAKA	0.6081	69.4	WB	8.00
DRB4_0101	28	DPRRVGVIVELIDHT	GVIVELIDH	0.6064	70.7	WB	8.00
DRB4_0101	492	GVVMIGMLSSVVGLG	VVMIGMLSS	0.6052	71.6	WB	8.00
DRB4_0101	489	SYGGVVMIGMLSSVV	VVMIGMLSS	0.6030	73.4	WB	8.00
DRB4_0101	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.5996	76.1	WB	8.00
DRB4_0101	529	QNRLLRVRSEAKANV	LVRSEAKA	0.5991	76.5	WB	8.00
DRB4_0101	607	RELQRQLGILSQVND	RELQRQLGI	0.5988	76.7	WB	8.00
DRB4_0101	528	KQNRLLRVRSEAKAN	LVRSEAKA	0.5963	78.8	WB	8.00
DRB4_0101	35	IVELIDHTIAIAKLN	VELIDHTIA	0.5959	79.2	WB	8.00
DRB4_0101	476	LRRGHKMIIGMRGSY	KMIIGMRGS	0.5943	80.6	WB	8.00
DRB4_0101	283	SNFPAIVKFLSEQVLS	VKFLSEQVL	0.5931	81.7	WB	8.00
DRB4_0101	610	QRQLGILSQVNDNLA	QLGILSQVN	0.5907	83.8	WB	8.00
DRB4_0101	475	PLRRGHKMIIGMRGS	KMIIGMRGS	0.5900	84.5	WB	8.00
DRB4_0101	70	VRVVIAGLLKQGKSQ	VRVVIAGLL	0.5897	84.7	WB	8.00
DRB4_0101	493	VVMIGMLSSVVGLGL	VVMIGMLSS	0.5862	88.0	WB	8.00
DRB4_0101	151	GHEVLRVEVGAPSPL	EVLRVEVGA	0.5839	90.2	WB	8.00
DRB4_0101	479	GRKMIIGMRGSYGGV	KMIIGMRGS	0.5817	92.4	WB	8.00
DRB4_0101	488	GSYGGVVMIGMLSSV	VVMIGMLSS	0.5815	92.6	WB	8.00
DRB4_0101	478	RGHKMIIGMRGSYGG	KMIIGMRGS	0.5807	93.4	WB	8.00
DRB4_0101	544	RRFVDDISFVSKQS	ISFVSKQS	0.5777	96.4	WB	8.00
DRB4_0101	550	ISFVSKQSRDRLKM	ISFVSKQS	0.5777	96.5	WB	8.00
DRB4_0101	527	DKQNRLLRVRSEAKA	LVRSEAKA	0.5761	98.2	WB	8.00
DRB4_0101	480	HKMIIGMRGSYGGVV	KMIIGMRGS	0.5756	98.7	WB	8.00
DRB4_0101	609	LQRQLGILSQVNDNL	LQRQLGILS	0.5753	99.0	WB	8.00

DRB4_0101	516	GLILGRMAYKEDKQN	GLILGRMAY	0.5746	99.7	WB	8.00
DRB4_0101	608	ELQRQLGILSQVNDN	LQRQLGILS	0.5730	101.5	WB	8.00
DRB4_0101	549	DISFVVSQSRDRLK	ISFVVSQKS	0.5725	102.1	WB	8.00
DRB4_0101	611	RQLGILSQVNDNLAG	LSQVNDNLA	0.5692	105.8	WB	16.00
DRB4_0101	477	RRLGHKMIIGMRGSYG	KMIIGMRGS	0.5683	106.8	WB	16.00
DRB4_0101	548	DDISFVVSQSRDRL	ISFVVSQKS	0.5668	108.5	WB	16.00
DRB4_0101	150	GGREVLRVVEVGAPSP	LRVEVGAPS	0.5626	113.6	WB	16.00
DRB4_0101	545	RFVDDISFVVSQSR	ISFVVSQKS	0.5609	115.7	WB	16.00
DRB4_0101	149	AGGREVLRVEVGAPS	EVLRVVEVGA	0.5590	118.1	WB	16.00
DRB4_0101	547	VDDISFVVSQSRDR	ISFVVSQKS	0.5513	128.4	WB	16.00
DRB4_0101	152	REVLRVVEVGAPSPLL	ELRVVEVGA	0.5498	130.5	WB	16.00
DRB4_0101	474	KPLRRGHKMIIGMRG	KPLRRGHKM	0.5497	130.7	WB	16.00
DRB4_0101	36	VELIDHTTIAIAKLNE	VELIDHTIA	0.5451	137.2	WB	16.00
DRB4_0101	50	ERGLDVQRLTRARQR	DLVQRLTRA	0.5417	142.4	WB	16.00
DRB4_0101	546	FVDDISFVVSQSRD	ISFVVSQKS	0.5404	144.4	WB	16.00
DRB4_0101	487	RGSYGGVVMIGMLSS	VVMIGMLSS	0.5379	148.3	WB	16.00
DRB4_0101	564	MIQRLLRDHYREIAE	MIQRLLRDH	0.5378	148.6	WB	16.00
DRB4_0101	612	QLGILSQVNDNLAGL	LSQVNDNLA	0.5336	155.5	WB	16.00
DRB4_0101	499	LSSVVGGLGFNPLSV	LGLFNPLSV	0.5326	157.1	WB	16.00
DRB4_0101	532	LLRVRSEAKANVRRF	LRVRSEAKA	0.5310	159.9	WB	16.00
DRB4_0101	473	SKPLRRGHKMIIGMR	KPLRRGHKM	0.5304	161.0	WB	16.00
DRB4_0101	27	DDPRRVGVIVELIDH	GVIVELIDH	0.5269	167.2	WB	16.00
DRB4_0101	501	SVVGLGFLFNPLSVGA	LGLFNPLSV	0.5253	170.1	WB	16.00
DRB4_0101	153	EVLRVVEVGAPSPLLR	EGLRVVEVGA	0.5246	171.3	WB	16.00
DRB4_0101	500	SSVVGGLGFLFNPLSVG	LGLFNPLSV	0.5241	172.3	WB	16.00
DRB4_0101	212	PEMWFVRQAHQICPV	EMWFVRQAH	0.5220	176.2	WB	16.00
DRB4_0101	554	VSKQSRDRLKMIQRL	DRLKMIQRL	0.5220	176.3	WB	16.00
DRB4_0101	49	NERGDLVQRLTRARQ	DLVQRLTRA	0.5220	176.3	WB	16.00
DRB4_0101	472	ESKPLRRGHKMIIGM	KPLRRGHKM	0.5171	185.8	WB	16.00
DRB4_0101	103	TVVITVVSYSQAQPSA	ITVVSYSQAQ	0.5166	186.9	WB	16.00
DRB4_0101	599	ETERDNRIRELQRQL	RIRELQRQL	0.5159	188.3	WB	16.00
DRB4_0101	509	NPLSVGAGLILGRMA	AGLILGRMA	0.5148	190.5	WB	16.00
DRB4_0101	542	NVRRFVDDISFVVS	RRFVDDISF	0.5144	191.4	WB	16.00
DRB4_0101	105	VITVVSYSQAQPSARL	ITVVSYSQAQ	0.5143	191.5	WB	16.00
DRB4_0101	51	RGDLVQRLTRARQRI	DLVQRLTRA	0.5141	191.9	WB	16.00
DRB4_0101	104	VVITVVSYSQAQPSAR	ITVVSYSQAQ	0.5126	195.2	WB	16.00
DRB4_0101	213	EMWFVRQAHQICPVG	EMWFVRQAH	0.5121	196.1	WB	16.00
DRB4_0101	102	ATVVITVVSYSQAQPS	ITVVSYSQAQ	0.5120	196.5	WB	16.00
DRB4_0101	494	VMIGMLSSVVGGLGLF	VMIGMLSSV	0.5118	196.9	WB	16.00
DRB4_0101	481	KMIIGMRGSYGGVVM	KMIIGMRGS	0.5114	197.7	WB	16.00
DRB4_0101	211	EPEMWFVRQAHQICP	EMWFVRQAH	0.5097	201.2	WB	16.00
DRB4_0101	541	ANVRRFVDDISFVVS	NVRRFVDDI	0.5078	205.4	WB	16.00
DRB4_0101	543	VRRFVDDISFVVSQK	RRFVDDISF	0.5052	211.3	WB	16.00
DRB4_0101	613	LGLSQVNDNLAGLE	LSQVNDNLA	0.5030	216.4	WB	16.00
DRB4_0101	497	GMLSSVVGGLGFNPL	VGLGFNPL	0.4991	225.9	WB	16.00
DRB4_0101	52	GDLVQRLTRARQRIT	DLVQRLTRA	0.4987	226.8	WB	32.00
DRB4_0101	101	EATVVITVVSYSQAQP	TVVITVVSYS	0.4944	237.6	WB	32.00
DRB4_0101	259	PIIAVSSLLRSHAVT	PIIAVSSLL	0.4928	241.8	WB	32.00
DRB4_0101	210	TEPEMWFVRQAHQIC	EMWFVRQAH	0.4921	243.5	WB	32.00
DRB4_0101	72	VVIAGLLKQGKSQLL	VVIAGLLKQ	0.4919	244.0	WB	32.00
DRB4_0101	471	MESKPLRRGHKMIIG	KPLRRGHKM	0.4906	247.6	WB	32.00
DRB4_0101	82	KSQLLNSLLNLPAAAR	QLLNSLLNL	0.4904	248.0	WB	32.00
DRB4_0101	53	DLVQRLTRARQRITD	VQRLTRARQ	0.4899	249.4	WB	32.00
DRB4_0101	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.4888	252.4	WB	32.00
DRB4_0101	540	KANVRRFVDDISFVV	VRRFVDDIS	0.4874	256.2	WB	32.00
DRB4_0101	81	GKSQQLLNSLLNLPAA	QLLNSLLNL	0.4874	256.3	WB	32.00
DRB4_0101	251	LQRARVPMPPIIAVSS	PMPPIIAVSS	0.4832	268.2	WB	32.00
DRB4_0101	106	ITVVSYSQAQPSARLV	ITVVSYSQAQ	0.4831	268.5	WB	32.00
DRB4_0101	80	QGKSQQLLNSLLNLPAA	QLLNSLLNL	0.4829	269.0	WB	32.00
DRB4_0101	495	MIGMLSSVVGGLGFN	IGMLSSVVG	0.4825	270.3	WB	32.00
DRB4_0101	498	MLSSVVGGLGFNPLS	SVVGLGFN	0.4817	272.5	WB	32.00
DRB4_0101	539	AKANVRRFVDDISFV	VRRFVDDIS	0.4815	273.3	WB	32.00
DRB4_0101	100	DEATVVITVVSYSQAQ	TVVITVVSYS	0.4810	274.6	WB	32.00
DRB4_0101	83	SQLLNSLLNLPAAARV	QLLNSLLNL	0.4795	279.0	WB	32.00
DRB4_0101	48	LNERGDLVQRLTRAR	DLVQRLTRA	0.4774	285.6	WB	32.00
DRB4_0101	496	IGMLSSVVGGLGFNP	IGMLSSVVG	0.4764	288.5	WB	32.00
DRB4_0101	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.4755	291.6	WB	32.00
DRB4_0101	470	RMESKPLRRGHKMI	KPLRRGHKM	0.4726	300.6	WB	32.00
DRB4_0101	78	LKQGKSQQLLNSLLNL	QLLNSLLNL	0.4692	312.0	WB	32.00
DRB4_0101	77	LLKQGKSQQLLNSLLN	LLKQGKSQQL	0.4679	316.5	WB	32.00

DRB4_0101	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.4640	330.0	WB	32.00
DRB4_0101	614	GILSQVNDNLAGLEP	LSQVNDNLA	0.4637	331.1	WB	32.00
DRB4_0101	115	PSARLVLAAGPDGTT	ARLVLAAGP	0.4627	334.9	WB	32.00
DRB4_0101	73	VIAGLLKQKSQLLN	IAGLLKQK	0.4622	336.5	WB	32.00
DRB4_0101	71	RVVIAGLLKQKSQL	IAGLLKQK	0.4614	339.5	WB	32.00
DRB4_0101	54	LVQRLTRARQRITDP	VQRLTRARQ	0.4604	343.1	WB	32.00
DRB4_0101	184	PHLSATLGLLPEADA	LGLLPEADA	0.4601	344.3	WB	32.00
DRB4_0101	538	EAKANVRRFVDDISF	VRRFVDDIS	0.4552	363.2	WB	32.00
DRB4_0101	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.4541	367.5	WB	32.00
DRB4_0101	114	QPSARLVLAAGPDGT	ARLVLAAGP	0.4537	369.1	WB	32.00
DRB4_0101	79	KQSQQLLNLSLLNLP	QLLNLSLLN	0.4535	369.8	WB	32.00
DRB4_0101	214	MWFVVRQAHCPCVGA	MWFVVRQAHC	0.4532	371.0	WB	32.00
DRB4_0101	63	QRITDPQVRVVIAGL	QRITDPQVR	0.4531	371.5	WB	32.00
DRB4_0101	116	SARLVLAAGPDGTTA	ARLVLAAGP	0.4516	377.3	WB	32.00
DRB4_0101	565	IQRLLRDHYREIAEE	IQRLLRDHY	0.4509	380.6	WB	32.00
DRB4_0101	250	HLQRARVPMPIIAVS	QRARVPMPI	0.4494	386.6	WB	32.00
DRB4_0101	164	PLLRGGLAFIDTPGV	PLLRGGLAF	0.4490	388.4	WB	32.00
DRB4_0101	209	FTEPEMWFVVRQAHI	EMWFVVRQAHC	0.4489	388.8	WB	32.00
DRB4_0101	76	GLLKQKSQLLNLSLL	LKQKSQLLN	0.4451	405.2	WB	32.00
DRB4_0101	74	IAGLLKQKSQLLNLS	IAGLLKQK	0.4447	406.8	WB	32.00
DRB4_0101	55	VQRLTRARQRITDPQ	VQRLTRARQ	0.4434	412.5	WB	32.00
DRB4_0101	84	QLLNLSLLNLPAAAVG	QLLNLSLLN	0.4403	426.7	WB	32.00
DRB4_0101	261	IAVSLLRSHAVTLN	VSLLRSHA	0.4402	426.9	WB	32.00
DRB4_0101	185	HSATLGLLPEADAV	LGLLPEADA	0.4365	444.3	WB	32.00
DRB4_0101	186	LSATLGLLPEADAVL	LGLLPEADA	0.4352	450.7	WB	32.00
DRB4_0101	262	AVSLLRSHAVTLND	VSLLRSHA	0.4323	465.2	WB	32.00
DRB4_0101	75	AGLLKQKSQLLNLSL	LLKQKSQL	0.4311	471.1	WB	32.00
DRB4_0101	463	GRLKALGRMESKPLR	LKALGRMES	0.4296	479.1	WB	32.00
DRB4_0101	107	TVVSYSQAQPSARLV	VVSYSQAQS	0.4292	481.0	WB	32.00
DRB4_0101	37	ELIDHTIAIAKLNER	DHTIAIAKL	0.4276	489.5	WB	32.00
DRB4_0101	113	AQPSARLVLAAGPDG	ARLVLAAGP	0.4273	491.2	WB	32.00
DRB4_0101	117	ARLVLAAGPDGTTAA	ARLVLAAGP	0.4235	511.9		32.00
DRB4_0101	445	LDSVLSAELSPHVMG	LDSVLSAEL	0.4233	512.5		32.00
DRB4_0101	187	SATLGLLPEADAVLV	LGLLPEADA	0.4233	512.8		32.00
DRB4_0101	533	LRVRSEAKANVRRFV	LRVRSEAKA	0.4232	513.4		32.00
DRB4_0101	260	I IAVSLLRSHAVTL	VSLLRSHA	0.4224	517.9		32.00
DRB4_0101	188	ATLGLLPEADAVLVV	LGLLPEADA	0.4223	518.0		32.00
DRB4_0101	40	DHTIAIAKLNERGDL	DHTIAIAKL	0.4209	526.3		32.00
DRB4_0101	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.4193	535.3		32.00
DRB4_0101	148	HAGGREVLRVEVGAP	EVLRVEVGA	0.4173	547.0		32.00
DRB4_0101	62	RQRITDPQVRVVIAG	QRITDPQVR	0.4167	550.6		32.00
DRB4_0101	161	APSPLLRGGLAFIDT	PLLRGGLAF	0.4165	552.0		32.00
DRB4_0101	249	AHLQRARVPMPIIAV	QRARVPMPI	0.4159	555.7		32.00
DRB4_0101	163	SPLLRGGLAFIDTPG	PLLRGGLAF	0.4156	557.0		32.00
DRB4_0101	39	IDHTIAIAKLNERGD	DHTIAIAKL	0.4151	560.3		32.00
DRB4_0101	486	MRGSYGGVVMIGMLS	GVMIGMLS	0.4151	560.3		32.00
DRB4_0101	444	GLDSVLSAELSPHVM	LDSVLSAEL	0.4144	564.5		32.00
DRB4_0101	247	NAAHLQRARVPMPII	QRARVPMPI	0.4139	567.9		32.00
DRB4_0101	26	PDDPRRVGVIVELID	RVGVIVELI	0.4137	569.2		32.00
DRB4_0101	290	KFLSEQVLSRATERV	KFLSEQVLS	0.4130	573.5		32.00
DRB4_0101	311	EIRSATEQLAVSLGS	IRSATEQLA	0.4123	577.7		32.00
DRB4_0101	47	KLNERGDLVQRLTRA	RGDLVQRLT	0.4112	584.3		32.00
DRB4_0101	162	PSPLLRGGLAFIDTP	PLLRGGLAF	0.4111	584.9		32.00
DRB4_0101	551	SFVVSQSRDRLKMI	SFVVSQSR	0.4111	584.9		32.00
DRB4_0101	38	LIDHTIAIAKLNERG	DHTIAIAKL	0.4092	596.9		32.00
DRB4_0101	306	AGVLGEIRSATEQLA	IRSATEQLA	0.4091	597.6		32.00
DRB4_0101	112	SAQPSARLVLAAGPD	ARLVLAAGP	0.4086	601.1		32.00
DRB4_0101	508	FNPLSVGAGLILGRM	LSVGAGLIL	0.4080	604.8		32.00
DRB4_0101	482	MIIGMRGSYGGVMI	MIIGMRGSY	0.4059	618.7		32.00
DRB4_0101	208	EFTPEMWFVVRQAHC	EMWFVVRQAHC	0.4055	621.8		32.00
DRB4_0101	462	FGRLKALGRMESKPL	LKALGRMES	0.4053	623.0		32.00
DRB4_0101	240	WREIVNANAHLQRA	EIVNANAHA	0.4051	624.2		32.00
DRB4_0101	615	ILSQVNDNLAGLEPT	LSQVNDNLA	0.4051	624.4		32.00
DRB4_0101	552	FVVSQSRDRLKMIQ	VSKQSRDRL	0.4023	643.6		32.00
DRB4_0101	282	ESNFPPIVKFLSEQV	IVKFLSEQV	0.4018	646.8		50.00
DRB4_0101	310	GEIRSATEQLAVSLG	IRSATEQLA	0.4017	647.7		50.00
DRB4_0101	464	RLKALGRMESKPLRR	LKALGRMES	0.4016	648.2		50.00
DRB4_0101	307	GVLGEIRSATEQLAV	IRSATEQLA	0.3979	675.0		50.00
DRB4_0101	248	AAHLQRARVPMPIIA	QRARVPMPI	0.3970	681.9		50.00
DRB4_0101	154	VLRVEVGAPSPLLRG	LRVEVGAPS	0.3962	687.3		50.00

DRB4_0101	312	IRSAEQQLAVSLGSE	IRSAEQQLA	0.3955	692.7	50.00
DRB4_0101	263	VSSLLRSHAVTLNDK	VSSLLRSHA	0.3948	697.8	50.00
DRB4_0101	239	RWREIVNANAHLQR	EIVNANAHAH	0.3929	712.6	50.00
DRB4_0101	418	VEQDNFVWAYQRSEAL	NFVWAYQRS	0.3928	713.5	50.00
DRB4_0101	315	ATQQLAVSLGSELSV	EQLAVSLGS	0.3914	723.9	50.00
DRB4_0101	309	LGEIRSAEQQLAVSL	IRSAEQQLA	0.3903	733.0	50.00
DRB4_0101	246	ANAAHLQRARVPMP I	QRARVPMP I	0.3895	739.2	50.00
DRB4_0101	147	PHAGGREVLRVEVGA	REVL RVEVG	0.3890	743.0	50.00
DRB4_0101	553	VVSKQSRDR LKMIQR	VSKQSRDR L	0.3880	751.0	50.00
DRB4_0101	189	TLGLLPEADAVLVVS	LGLLPEADA	0.3880	751.0	50.00
DRB4_0101	465	LKALGRMESKPLRRG	LKALGRMES	0.3876	754.6	50.00
DRB4_0101	317	EQLAVSLGSELSV V N	EQLAVSLGS	0.3875	754.9	50.00
DRB4_0101	469	GRMESKPLRRGHKMI	KPLRRGHKM	0.3870	759.2	50.00
DRB4_0101	443	AGLDSVLSAELSPHV	LDSVLSAEL	0.3869	760.4	50.00
DRB4_0101	57	RLTRARQRITDPQVR	RLTRARQR I	0.3861	766.9	50.00
DRB4_0101	308	VLGEIRSAEQQLAVS	IRSAEQQLA	0.3858	769.2	50.00
DRB4_0101	61	ARQRITDPQVRV V I A	QRITDPQVR	0.3856	771.4	50.00
DRB4_0101	316	TEQQLAVSLGSELSV V	EQLAVSLGS	0.3830	793.4	50.00
DRB4_0101	506	GLFNPLSVGAGLILG	LSVGAGLIL	0.3829	793.6	50.00
DRB4_0101	507	LFNPLSVGAGLILGR	LSVGAGLIL	0.3803	816.3	50.00
DRB4_0101	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.3799	820.2	50.00
DRB4_0101	99	DDEATVVITVVSYS A	TVVITVVS Y	0.3798	820.6	50.00
DRB4_0101	56	QRLTRARQRITDPQV	QRLTRARQR	0.3798	820.6	50.00
DRB4_0101	155	LRVEVGAPSPLLRGG	L RVEVGAPS	0.3796	822.9	50.00
DRB4_0101	354	VQQTALWQQVLGDGF	VQQTALWQQ	0.3786	831.3	50.00
DRB4_0101	461	DFGRLKALGRMESKP	LKALGRMES	0.3766	849.8	50.00
DRB4_0101	517	LILGRMAYKEDKQNR	LILGRMAYK	0.3753	862.1	50.00
DRB4_0101	179	GGLGQPHLSATLGLL	GGLGQPHLS	0.3747	867.4	50.00
DRB4_0101	321	VSLGSELSV V N D P N L	ELSVVNDPN	0.3747	867.7	50.00
DRB4_0101	25	QPDDPRRVGVIVELI	RVGVIVELI	0.3746	868.2	50.00
DRB4_0101	190	LGLLPEADAVLVVSD	LGLLPEADA	0.3746	868.9	50.00
DRB4_0101	215	WFVRQAHQICPVGAV	FVRQAHQIC	0.3742	872.5	50.00
DRB4_0101	131	AVDIPVDDISTDVRR	VDDISTDVR	0.3733	880.6	50.00
DRB4_0101	178	VGGLGQPHLSATLGL	VGGLGQPHL	0.3725	888.4	50.00
DRB4_0101	238	PRWREIVNANAHLQ	EIVNANAHAH	0.3719	894.4	50.00
DRB4_0101	46	AKLNFWGDLVQR LTR	RGDLVQR L T	0.3701	912.0	50.00
DRB4_0101	419	GDNFVWAYQRSEALA	NFVWAYQRS	0.3697	915.3	50.00
DRB4_0101	160	GAPSPLLRGGLAFID	PLL R GGLAF	0.3691	921.9	50.00
DRB4_0101	460	TDFGRLKALGRMESK	LKALGRMES	0.3689	923.4	50.00
DRB4_0101	446	DSVLSAELSPHVMGT	DSVLSAELS	0.3666	946.6	50.00
DRB4_0101	537	SEAKANVRRFVDDIS	VRRFVDDIS	0.3664	948.8	50.00
DRB4_0101	8	YRDLRRKRARKWGDT	YRDLRRKRA	0.3658	955.2	50.00
DRB4_0101	197	DAVLVVSDTSQEFTE	AVLVVSDTS	0.3658	955.3	50.00
DRB4_0101	132	VDIPVDDISTDVRR A	VDDISTDVR	0.3642	971.4	50.00
DRB4_0101	417	AVGDNFVWAYQRSEA	NFVWAYQRS	0.3639	974.9	50.00
DRB4_0101	292	LSEQVLSRATERVRA	QVLSRATER	0.3626	988.5	50.00
DRB4_0101	182	QPHLSATLGLLPEA	QPHLSATLG	0.3624	991.1	50.00
DRB4_0101	7	AYRDLRRKRARKWGD	YRDLRRKRA	0.3624	991.4	50.00
DRB4_0101	350	AQAVQQTALWQQVL	QAVQQTALW	0.3623	992.2	50.00
DRB4_0101	85	LNLNLNLPAARVGD	LNSLLNLPA	0.3615	1000.6	50.00
DRB4_0101	459	GTDFGRLKALGRMES	LKALGRMES	0.3615	1000.9	50.00
DRB4_0101	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.3611	1005.0	50.00
DRB4_0101	442	DAGLDSVLSAELSPH	LDSVLSAEL	0.3587	1031.2	50.00
DRB4_0101	579	EITRSLTESLQATIA	ITRSLTESL	0.3585	1034.2	50.00
DRB4_0101	577	AAEITRSLTESLQAT	ITRSLTESL	0.3584	1034.6	50.00
DRB4_0101	130	AAVDIPVDDISTDVRR	VDDISTDVR	0.3580	1039.2	50.00
DRB4_0101	41	HTIAIAKLN ERGDLV	HTIAIAKLN	0.3577	1042.7	50.00
DRB4_0101	580	ITRSLTESLQATIAA	ITRSLTESL	0.3569	1051.4	50.00
DRB4_0101	181	LGQPHLSATLGLLPE	PHLSATLGL	0.3559	1062.7	50.00
DRB4_0101	291	FLSEQVLSRATERVR	LSEQVLSRA	0.3557	1065.2	50.00
DRB4_0101	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.3552	1071.5	50.00
DRB4_0101	416	TAVGDNFVWAYQRSE	NFVWAYQRS	0.3548	1076.1	50.00
DRB4_0101	351	QAVQQTALWQQVLG	QAVQQTALW	0.3535	1091.4	50.00
DRB4_0101	323	LGSELSV V N D P N L R D	LSVVNDPNL	0.3533	1093.3	50.00
DRB4_0101	180	GLGQPHLSATLGLLP	LSATLGLLP	0.3532	1095.1	50.00
DRB4_0101	322	SLGSELSV V N D P N L R	LSVVNDPNL	0.3530	1096.7	50.00
DRB4_0101	111	YSAQPSARLVLAAGP	ARLVLAAGP	0.3530	1096.9	50.00
DRB4_0101	177	GVGGLGQPHLSATLG	VGGLGQPHL	0.3528	1099.4	50.00
DRB4_0101	6	CAYRDLRRKRARKWG	YRDLRRKRA	0.3525	1103.6	50.00
DRB4_0101	159	VGAPSPLLRGGLAFI	PLL R GGLAF	0.3513	1117.2	50.00

DRB4_0101	525	KEDKQNRLLRVRSEA	RLLRVRSEA	0.3502	1131.3	50.00
DRB4_0101	420	DNFVWAYQRSEALAD	NFVWAYQRS	0.3501	1132.3	50.00
DRB4_0101	578	EEITRSLTESLQATI	ITRSLTESL	0.3490	1145.7	50.00
DRB4_0101	324	GSELSVVNDPNLRDR	LSVVNDPNL	0.3485	1151.5	50.00
DRB4_0101	353	AVQQTALWQQVLDG	VQQTALWQQ	0.3484	1153.4	50.00
DRB4_0101	196	ADAVLVVSDTSQEFT	AVLVVSDTS	0.3482	1155.0	50.00
DRB4_0101	576	IAEEITRSLTESLQA	EITRSLTES	0.3477	1161.3	50.00
DRB4_0101	320	AVSLGSELSVVNDPN	VSLGSELSV	0.3472	1168.5	50.00
DRB4_0101	237	YPRWREIVNANAHL	WREIVNANA	0.3471	1169.2	50.00
DRB4_0101	58	LTRARQRITDPQVRV	LTRARQRIT	0.3471	1169.6	50.00
DRB4_0101	349	EAQQAVQQTALWQQV	QAVQQTALW	0.3469	1171.5	50.00
DRB4_0101	333	PNLRDRLASDLERRK	LRDRLASDL	0.3469	1172.1	50.00
DRB4_0101	314	SATEQLAVSLGSELS	EQLAVSLGS	0.3453	1192.6	50.00
DRB4_0101	207	QEFTPEMWFVRQAH	EMWFVRQAH	0.3451	1195.3	50.00
DRB4_0101	352	QAVQQTALWQQVLDG	VQQTALWQQ	0.3448	1199.0	50.00
DRB4_0101	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.3439	1210.0	50.00
DRB4_0101	183	QPHLSATLGLLPEAD	QPHLSATLG	0.3423	1231.7	50.00
DRB4_0101	581	TRSLTESLQATIAAA	RSLTESLQA	0.3419	1237.4	50.00
DRB4_0101	5	LCAYRDLRRKRARKW	YRDLRRKRA	0.3397	1266.2	50.00
DRB4_0101	176	PGVGGGLGQPHLSATL	VGGLGQPHL	0.3383	1286.7	50.00
DRB4_0101	441	ADAGLDSVLSAELSP	DSVLSAELS	0.3378	1292.9	50.00
DRB4_0101	325	SELSVVNDPNLRDRL	LSVVNDPNL	0.3377	1295.1	50.00
DRB4_0101	355	QQTALWQQVLDGDFN	WQQVLDGDF	0.3364	1312.7	50.00
DRB4_0101	241	REIVNANAHLQRAR	REIVNANA	0.3361	1316.5	50.00
DRB4_0101	598	AETERDNRIRELQRQ	NRIRELQRQ	0.3354	1327.7	50.00
DRB4_0101	135	PVDDISTDVRRAPHA	VDDISTDVR	0.3343	1342.4	50.00
DRB4_0101	98	GDDEATVVITVVSYS	TVVITVVSYS	0.3342	1345.2	50.00
DRB4_0101	60	RARQRITDPQVRVVI	QRITDPQVR	0.3328	1365.5	50.00
DRB4_0101	139	ISTDVRRAPHAGGRE	STDVRRAPH	0.3326	1367.9	50.00
DRB4_0101	266	LLRSHAVTLNDKELN	VTLNDKELN	0.3325	1369.5	50.00
DRB4_0101	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.3305	1400.1	50.00
DRB4_0101	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.3302	1403.8	50.00
DRB4_0101	45	IAKLNERGDLVQRLT	RGDLVQRLT	0.3298	1410.8	50.00
DRB4_0101	567	RLLRDHYREIAEET	RLLRDHYRE	0.3296	1412.9	50.00
DRB4_0101	195	EADAVLVVSDTSQEF	AVLVVSDTS	0.3293	1417.1	50.00
DRB4_0101	305	RAGVLGEIRSATEQL	RAGVLGEIR	0.3284	1431.4	50.00
DRB4_0101	265	LLRSHAVTLNDKEL	LLRSHAVTL	0.3284	1431.9	50.00
DRB4_0101	158	EVGAPSPLLRGGLAF	PLLRGGLAF	0.3274	1446.9	50.00
DRB4_0101	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.3267	1458.3	50.00
DRB4_0101	621	DNLAGLEPTLTTPRAS	LAGLEPTLT	0.3260	1469.2	50.00
DRB4_0101	332	DPNLRDRLASDLERR	LRDRLASDL	0.3259	1470.3	50.00
DRB4_0101	582	RSLTESLQATIAAAQ	RSLTESLQA	0.3255	1478.1	50.00
DRB4_0101	3	AGLCAYRDLRRKRAR	YRDLRRKRA	0.3253	1480.9	50.00
DRB4_0101	136	VDDISTDVRRAPHAG	VDDISTDVR	0.3246	1492.4	50.00
DRB4_0101	377	HDLRTRFRFTVTEDAE	DLRTRFRFTV	0.3243	1496.2	50.00
DRB4_0101	138	DISTDVRRAPHAGGR	STDVRRAPH	0.3243	1496.5	50.00
DRB4_0101	133	DIPVDDISTDVRRAP	VDDISTDVR	0.3239	1503.6	50.00
DRB4_0101	378	DLRTRFRFTVTEDAER	LRTRFRFTVT	0.3234	1511.5	50.00
DRB4_0101	485	GMRGSYGGVVMIGML	GGVVMIGML	0.3230	1517.8	50.00
DRB4_0101	318	QLAVSLGSELSVVND	LAVSLGSEL	0.3221	1532.6	50.00
DRB4_0101	166	LRAGLAFIDTPGVGG	LAFIDTPGV	0.3215	1541.9	50.00
DRB4_0101	575	EIAEEITRSLTESLQ	ITRSLTESL	0.3213	1546.1	50.00
DRB4_0101	236	LYPRWREIVNANAHL	WREIVNANA	0.3212	1547.8	50.00
DRB4_0101	359	LWQQVLDGDFNDLTA	WQQVLDGDF	0.3205	1559.1	50.00
DRB4_0101	140	STDVRRAPHAGGREV	STDVRRAPH	0.3204	1560.9	50.00
DRB4_0101	216	FVRQAHQICPVGAVV	FVRQAHQIC	0.3203	1562.8	50.00
DRB4_0101	421	NFVWAYQRSEALADD	NFVWAYQRS	0.3192	1582.0	50.00
DRB4_0101	302	ERVRAGVLGEIRSAT	ERVRAGVLG	0.3188	1587.8	50.00
DRB4_0101	134	IPVDDISTDVRRAPH	VDDISTDVR	0.3187	1589.8	50.00
DRB4_0101	348	REAQQAVQQTALWQQ	QAVQQTALW	0.3185	1593.8	50.00
DRB4_0101	573	YREIAEEITRSLTES	YREIAEEIT	0.3176	1609.7	50.00
DRB4_0101	108	VDSYSAQPSARLVLA	VSYSAQPSA	0.3175	1611.1	50.00
DRB4_0101	234	TYPRWREIVNANAHL	WREIVNANA	0.3174	1612.3	50.00
DRB4_0101	622	NLAGLEPTLTTPRASL	LAGLEPTLT	0.3173	1615.0	50.00
DRB4_0101	379	LRTRFRFTVTEDAERQ	LRTRFRFTVT	0.3168	1622.9	50.00
DRB4_0101	620	NDNLAGLEPTLTTPRA	NLAGLEPTL	0.3165	1629.1	50.00
DRB4_0101	566	QRLLRDHYREIAEEI	QRLLRDHYR	0.3159	1638.4	50.00
DRB4_0101	468	LGRMESKPLRRGHKM	KPLRRGHKM	0.3158	1641.0	50.00
DRB4_0101	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.3153	1649.3	50.00
DRB4_0101	334	NLRDRLASDLERRKR	LRDRLASDL	0.3147	1660.3	50.00

DRB4_0101	313	RSATEQLAVSLGSEL	EQLAVSLGS	0.3146	1663.0	50.00
DRB4_0101	264	SSLLRSHAVTLNDKE	SSLLRSHAV	0.3144	1665.2	50.00
DRB4_0101	293	SEQVLSRATERVRAG	EQVLSRATE	0.3141	1670.9	50.00
DRB4_0101	360	WQQVLDGDFNDLTAD	WQQVLDGDF	0.3133	1685.1	50.00
DRB4_0101	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.3133	1686.6	50.00
DRB4_0101	59	TRARQRITDPQVRVV	QRITDPQVR	0.3131	1689.0	50.00
DRB4_0101	175	TPGVGGLGQPHLSAT	VGGLGQPHL	0.3126	1698.7	50.00
DRB4_0101	194	PEADAVLVVSDTSQE	AVLVVSDTS	0.3123	1704.3	50.00
DRB4_0101	245	NANAAHLQRARVPM	HLQRARVPM	0.3120	1708.9	50.00
DRB4_0101	618	QVNDNLAGLEPTLTP	LAGLEPTLT	0.3120	1710.4	50.00
DRB4_0101	86	LNSLLNLPAARVGDD	LNSLLNLPA	0.3107	1733.7	50.00
DRB4_0101	376	DHDLRTRFRFTVTEDA	LRTRFRFTVT	0.3104	1739.7	50.00
DRB4_0101	619	VNDNLAGLEPTLTPR	LAGLEPTLT	0.3098	1750.1	50.00
DRB4_0101	137	DDISTDVRRAPHAGG	STDVRRAPH	0.3085	1776.0	50.00
DRB4_0101	331	NDPNLRDRLASDLER	LRDRLASDL	0.3082	1781.6	50.00
DRB4_0101	389	DAERQIDSCDPTAHW	RQIDSCDPT	0.3079	1787.3	50.00
DRB4_0101	235	DLYPRWREIVNANA	WREIVNANA	0.3078	1789.4	50.00
DRB4_0101	242	EIVNANAHLQRARV	EIVNANAHA	0.3076	1793.4	50.00
DRB4_0101	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.3075	1795.6	50.00
DRB4_0101	440	FADAGLDSVLSAELS	LDSVLSAEL	0.3074	1796.0	50.00
DRB4_0101	304	VRAGVLGEIRSAEQ	GVLGEIRSA	0.3071	1802.3	50.00
DRB4_0101	303	RVRAGVLGEIRSAE	AGVLGEIRS	0.3070	1803.8	50.00
DRB4_0101	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.3063	1818.9	50.00
DRB4_0101	572	HYREIAEEITRSLTE	YREIAEEIT	0.3048	1847.5	50.00
DRB4_0101	568	LLRDHYREIAEEITR	YREIAEEIT	0.3039	1866.0	50.00
DRB4_0101	301	TERVRAGVLGEIRSA	ERVRAGVLG	0.3031	1882.9	50.00
DRB4_0101	574	REIAEEITRSLTESL	ITRSLTESL	0.3016	1914.2	50.00
DRB4_0101	2	PAGLCAYRDLRRKRA	YRDLRRKRA	0.3010	1926.2	50.00
DRB4_0101	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.3008	1929.5	50.00
DRB4_0101	326	ELSVNDPNLRDRLA	LSDVNDPNL	0.2996	1955.2	50.00
DRB4_0101	281	EESNFPAIVKFLSEQ	FPAIVKFLS	0.2994	1958.3	50.00
DRB4_0101	356	QTALWQQVLDGDFND	WQQVLDGDF	0.2992	1962.8	50.00
DRB4_0101	375	VDHLRTRFRFTVTED	LRTRFRFTVT	0.2981	1987.8	50.00
DRB4_0101	358	ALWQQVLDGDFNDLT	VLGDGFNDL	0.2975	1999.8	50.00
DRB4_0101	9	RDLRRKRARKWGDTV	LRRKRARKW	0.2973	2004.3	50.00
DRB4_0101	267	LRSHAVTLNDKELNE	VTLNDKELN	0.2972	2007.3	50.00
DRB4_0101	167	RGSLAFIDTPGVGGL	LAFIDTPGV	0.2960	2032.4	50.00
DRB4_0101	345	RRKREAQQAVQQTAL	RRKREAQQA	0.2956	2042.0	50.00
DRB4_0101	330	VNDPNLRDRLASDLE	LRDRLASDL	0.2955	2044.0	50.00
DRB4_0101	335	LRDRLASDLERRKRE	LRDRLASDL	0.2953	2049.0	50.00
DRB4_0101	569	LRDHYREIAEEITRS	LRDHYREIA	0.2949	2057.2	50.00
DRB4_0101	346	RKREAQQAVQQTALW	AQQAVQQTA	0.2946	2063.0	50.00
DRB4_0101	583	SLTESLQATIAAAQV	LTESLQATI	0.2943	2070.8	50.00
DRB4_0101	174	DTPGVGGLGQPHLSA	VGGLGQPHL	0.2942	2072.4	50.00
DRB4_0101	584	LTESLQATIAAAQVA	ATIAAAQVA	0.2937	2083.6	50.00
DRB4_0101	24	TQPDDPRRVGVIVEL	RRVGVIVEL	0.2934	2091.7	50.00
DRB4_0101	225	PVGAVVATKTDLYPR	VGAVVATKT	0.2933	2092.8	50.00
DRB4_0101	571	DHYREIAEEITRSLT	YREIAEEIT	0.2931	2097.5	50.00
DRB4_0101	226	VGAVVATKTDLYPRW	VGAVVATKT	0.2930	2099.3	50.00
DRB4_0101	362	VLGDGFNDLTADVD	VLGDGFNDLT	0.2923	2116.1	50.00
DRB4_0101	129	TAAVDIPVDDISTDV	VDIPVDDIS	0.2917	2128.4	50.00
DRB4_0101	156	RVEVGAPSPLLRGGL	VEVGAPSPL	0.2905	2158.0	50.00
DRB4_0101	458	MGTDFGRLKALGRME	GRLKALGRM	0.2882	2211.6	50.00
DRB4_0101	0	MVPAGLCAYRDLRRK	AGLCAYRDL	0.2878	2222.0	50.00
DRB4_0101	220	AHQICPVGAVVATKT	AHQICPVGA	0.2877	2223.9	50.00
DRB4_0101	224	CPVGAVVATKTDLYP	VGAVVATKT	0.2871	2238.1	50.00
DRB4_0101	199	VLVVSDTSQEFTEPE	VLVVSDTSQ	0.2871	2238.5	50.00
DRB4_0101	219	QAHQICPVGAVVATK	AHQICPVGA	0.2867	2249.0	50.00
DRB4_0101	329	VVNDPNLRDRLASDL	LRDRLASDL	0.2867	2249.0	50.00
DRB4_0101	570	RDHYREIAEEITRSL	YREIAEEIT	0.2865	2252.0	50.00
DRB4_0101	374	DVDHLRTRFRFTVTE	LRTRFRFTVT	0.2864	2254.1	50.00
DRB4_0101	483	IIGMRGSYGGVVMIG	IGMRGSYGG	0.2862	2260.6	50.00
DRB4_0101	294	EQVLSRATERVRAGV	EQVLSRATE	0.2857	2271.8	50.00
DRB4_0101	357	TALWQQVLDGDFNDL	VLGDGFNDL	0.2857	2273.0	50.00
DRB4_0101	223	ICPVGAVVATKTDLY	AVVATKTDL	0.2842	2309.4	50.00
DRB4_0101	327	LSVVNDPNLRDRLAS	LSVVNDPNL	0.2840	2314.4	50.00
DRB4_0101	300	ATERVRAGVLGEIRS	ERVRAGVLG	0.2838	2319.3	50.00
DRB4_0101	228	AVVATKTDLYPRWRE	AVVATKTDL	0.2837	2322.2	50.00
DRB4_0101	484	IGMRGSYGGVVMIGM	IGMRGSYGG	0.2834	2328.9	50.00
DRB4_0101	244	VNANAHLQRARVPM	HLQRARVPM	0.2834	2329.6	50.00

DRB4_0101	344	ERRKREAQQAVQQT	RRKREAQQA	0.2827	2348.4	50.00
DRB4_0101	1	VPAGLCAYRDLRRKR	AGLCAYRDL	0.2827	2348.5	50.00
DRB4_0101	217	VRQAHQICPVGAVVA	AHQICPVGA	0.2808	2396.3	50.00
DRB4_0101	454	SPHVMGTDGFRLLKAL	SPHVMGTDG	0.2789	2445.7	50.00
DRB4_0101	447	SVLSAELSPHVMGTD	SVLSAELSP	0.2778	2475.5	50.00
DRB4_0101	363	VLGDGFNDLTADVHD	LGDFNDLT	0.2776	2480.9	50.00
DRB4_0101	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.2774	2486.1	50.00
DRB4_0101	347	KREAQQAVQQTALWQ	QAVQQTALW	0.2772	2491.8	50.00
DRB4_0101	457	VMGTDGFRLLKALGRM	DFGRLLKALG	0.2769	2498.6	50.00
DRB4_0101	518	ILGRMAYKEDKQNRLL	GRMAYKEDK	0.2764	2513.8	50.00
DRB4_0101	243	IVNANAHLQRRARVP	IVNANAHL	0.2763	2516.0	50.00
DRB4_0101	386	VTEDAERQIDSCDPT	RQIDSCDPT	0.2756	2535.0	50.00
DRB4_0101	466	KALGRMESKPLRRGH	LGRMESKPL	0.2752	2544.7	50.00
DRB4_0101	373	ADVVDHDLRTRFRRTVT	LRTRFRRTVT	0.2748	2557.0	50.00
DRB4_0101	361	QQVLGDGFNDLTADV	LGDFNDLT	0.2734	2594.8	50.00
DRB4_0101	157	VEVGAPSPLLRGGGLA	VEVGAPSP	0.2728	2613.2	50.00
DRB4_0101	414	IATAVGDNFVWAYQR	GDNFVWAYQ	0.2714	2652.7	50.00
DRB4_0101	268	RSHAVTLNDKELNEE	VTLNDKELN	0.2714	2653.7	50.00
DRB4_0101	456	HVMGTDGFRLLKALGR	HVMGTDGFR	0.2709	2666.2	50.00
DRB4_0101	109	VSYSAQPSARLVLA	VSYSAQPSA	0.2705	2679.9	50.00
DRB4_0101	453	LSPHVMGTDGFRLLKA	SPHVMGTDG	0.2702	2686.0	50.00
DRB4_0101	146	APHAGGREVLRVEVG	GREVLRVEV	0.2697	2702.3	50.00
DRB4_0101	364	LGDFNDLTADVHDH	LGDFNDLT	0.2661	2809.6	50.00
DRB4_0101	173	IDTPGVGGLGQPHLS	VGGLGQPHL	0.2658	2819.7	50.00
DRB4_0101	97	VGDDEATVVITVVS	TVVITVVS	0.2651	2838.3	50.00
DRB4_0101	44	AIAKLNERGDLVQRL	ERGDLVQRL	0.2649	2846.6	50.00
DRB4_0101	524	YKEDKQNRLLRVRSE	NRLLRVRSE	0.2638	2880.4	50.00
DRB4_0101	380	RTRFRRTVTEAERQI	TRFRRTVTE	0.2629	2909.6	50.00
DRB4_0101	222	QICPVGAVVATKTDL	VGAVVATKT	0.2626	2918.2	50.00
DRB4_0101	218	RQAHQICPVGAVVAT	AHQICPVGA	0.2624	2923.6	50.00
DRB4_0101	87	NSLLNLPAAARVGDE	NSLLNLPAA	0.2613	2958.7	50.00
DRB4_0101	10	DLRRKRARKWGDVT	LRRKRARKW	0.2611	2964.7	50.00
DRB4_0101	434	DDVARSFADAGLDSV	ARSFADAGL	0.2595	3018.0	50.00
DRB4_0101	365	GDGFNDLTADVHDH	FNDLTADV	0.2592	3025.8	50.00
DRB4_0101	451	AELSPHVMGTDGFRLL	AELSPHVMG	0.2583	3056.2	50.00
DRB4_0101	233	KTDLYPRWREIVNAN	DLYPRWREI	0.2583	3057.8	50.00
DRB4_0101	455	PHVMGTDGFRLLKALG	HVMGTDGFR	0.2582	3060.1	50.00
DRB4_0101	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.2568	3107.3	50.00
DRB4_0101	623	LAGLEPTLTPRASLG	LAGLEPTLT	0.2559	3137.3	50.00
DRB4_0101	269	SHAVTLNDKELNEES	VTLNDKELN	0.2554	3155.3	50.00
DRB4_0101	449	LSAELSPHVMGTDGFR	LSAELSPHV	0.2551	3163.4	50.00
DRB4_0101	519	LGRMAYKEDKQNRLL	GRMAYKEDK	0.2550	3169.3	50.00
DRB4_0101	452	ELSPHVMGTDGFRLLK	SPHVMGTDG	0.2546	3182.9	50.00
DRB4_0101	110	SYSAQPSARLVLAAG	QPSARLVLA	0.2543	3190.4	50.00
DRB4_0101	381	TRFRRTVTEAERQID	FRTVTEAE	0.2538	3207.9	50.00
DRB4_0101	227	GAVVATKTDLYPRWR	AVVATKTDL	0.2534	3222.5	50.00
DRB4_0101	372	TADVVDHDLRTRFRTV	HDLRTRFRTV	0.2527	3248.8	50.00
DRB4_0101	128	TTAAVDIPVDDISTD	VDIPVDDIS	0.2515	3289.6	50.00
DRB4_0101	450	SAELSPHVMGTDGFR	SPHVMGTDG	0.2504	3329.1	50.00
DRB4_0101	342	DLERRKREAQQAVQ	RRKREAQQA	0.2502	3336.7	50.00
DRB4_0101	280	NEESNFPPIVVKFLSE	FPIVVKFLS	0.2501	3340.8	50.00
DRB4_0101	343	LERRKREAQQAVQQT	RRKREAQQA	0.2476	3431.6	50.00
DRB4_0101	340	ASDLERRKREAQQAV	RRKREAQQA	0.2468	3462.9	50.00
DRB4_0101	271	AVTLNDKELNEESNF	VTLNDKELN	0.2463	3481.6	50.00
DRB4_0101	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.2459	3495.4	50.00
DRB4_0101	11	LRRKRARKWGDVTQ	LRRKRARKW	0.2455	3509.9	50.00
DRB4_0101	169	GGLAFIDTPGVGGLG	LAFIDTPGV	0.2452	3522.2	50.00
DRB4_0101	295	QVLSRATERVRAGVL	VLSRATERV	0.2449	3534.0	50.00
DRB4_0101	299	RATERVRAGVLGEIR	ERVRAGVLG	0.2437	3580.6	50.00
DRB4_0101	439	SFADAGLDSVLSAEL	LDSVLSAEL	0.2427	3617.4	50.00
DRB4_0101	432	LADDVARSFADAGLD	ARSFADAGL	0.2422	3638.4	50.00
DRB4_0101	88	LLNLPAAARVGDEA	LLNLPAAARV	0.2418	3652.2	50.00
DRB4_0101	141	TDVRRAPHAGGREVL	TDVRRAPHA	0.2417	3656.7	50.00
DRB4_0101	366	DGFNDLTADVHDHDLR	NDLTADVHD	0.2415	3666.7	50.00
DRB4_0101	367	GFNDLTADVHDHDLRT	NDLTADVHD	0.2414	3669.6	50.00
DRB4_0101	270	HAVTLNDKELNEESN	VTLNDKELN	0.2412	3678.0	50.00
DRB4_0101	433	ADDVARSFADAGLDS	ARSFADAGL	0.2407	3697.5	50.00
DRB4_0101	369	NDLTADVVDHDLRTRF	NDLTADVVDH	0.2407	3698.4	50.00
DRB4_0101	341	SDLERRKREAQQAVQ	RRKREAQQA	0.2403	3712.4	50.00
DRB4_0101	448	VLSAELSPHVMGTDG	LSAELSPHV	0.2375	3829.1	50.00

DRB4_0101	520	GRMAYKEDKQNRLLR	GRMAYKEDK	0.2373	3835.8	50.00
DRB4_0101	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.2352	3923.3	50.00
DRB4_0101	467	ALGRMESKPLRRGHK	LGRMESKPL	0.2350	3932.3	50.00
DRB4_0101	232	TKTDLYPRWREIVNA	DLYPRWREI	0.2349	3935.8	50.00
DRB4_0101	431	ALADDVARSFADAGL	ARSFADAGL	0.2341	3969.4	50.00
DRB4_0101	42	TIAIAKLNREGDLVQ	TIAIAKLNE	0.2339	3979.2	50.00
DRB4_0101	127	GTAAVDIPVDDIST	VDIPVDDIS	0.2339	3981.4	50.00
DRB4_0101	206	SQEFTEPEMWFVRQA	PEMWFVRQA	0.2337	3990.7	50.00
DRB4_0101	422	FVWAYQRSEALADDV	WAYQRSEAL	0.2321	4057.1	50.00
DRB4_0101	339	LASDLERRKREAQQ	RRKREAQQ	0.2317	4078.0	50.00
DRB4_0101	368	FNDLTADVHDHLRTR	NDLTADVHD	0.2312	4099.9	50.00
DRB4_0101	296	VLSRATERVRAGVLG	ERVRAGVLG	0.2309	4111.6	50.00
DRB4_0101	625	GLEPTLTPRASLGRA	PTLTPRASL	0.2307	4120.9	50.00
DRB4_0101	371	LTADVHDHLRTRFRT	HDLRTRFRT	0.2295	4174.5	50.00
DRB4_0101	370	DLTADVHDHLRTRFR	DLTADVHD	0.2278	4252.7	50.00
DRB4_0101	585	TESLQATIAAAQVAE	ATIAAAQVA	0.2275	4265.7	50.00
DRB4_0101	597	VAETERDNRIRELQR	RDNRIRELQ	0.2271	4281.8	50.00
DRB4_0101	437	ARSFADAGLDSVLSA	ARSFADAGL	0.2257	4349.2	50.00
DRB4_0101	536	RSEAKANVRRFVDDI	NVRRFVDDI	0.2252	4370.5	50.00
DRB4_0101	221	HQICPVGAVVATKTD	VGAVVATKT	0.2248	4391.6	50.00
DRB4_0101	191	GLLPEADAVLVVSDT	DAVLVVSDT	0.2229	4480.6	50.00
DRB4_0101	231	ATKTDLYPRWREIVN	DLYPRWREI	0.2214	4556.7	50.00
DRB4_0101	413	AIATAVGDNFVWAYQ	GDNFVWAYQ	0.2211	4569.8	50.00
DRB4_0101	435	DVARSFADAGLDSVL	ARSFADAGL	0.2211	4570.9	50.00
DRB4_0101	624	AGLEPTLTPRASLGR	PTLTPRASL	0.2190	4674.4	50.00
DRB4_0101	523	AYKEDKQNRLLRVRS	KQNRLLRVR	0.2177	4741.9	50.00
DRB4_0101	43	IAIAKLNREGDLVQR	LNERGDLVQ	0.2175	4752.3	50.00
DRB4_0101	535	VRSEAKANVRRFVDD	VRSEAKANV	0.2169	4785.0	50.00
DRB4_0101	423	VWAYQRSEALADDVA	WAYQRSEAL	0.2145	4907.7	50.00
DRB4_0101	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.2145	4911.2	50.00
DRB4_0101	382	FRYKVTEDAERQIDS	FRTVTEDAE	0.2140	4936.2	50.00
DRB4_0101	586	ESLQATIAAAQVAET	ATIAAAQVA	0.2126	5013.0	50.00
DRB4_0101	521	RMAYKEDKQNRLLRV	MAYKEDKQN	0.2123	5026.4	50.00
DRB4_0101	126	DGTTAAVDIPVDDIS	VDIPVDDIS	0.2115	5070.0	50.00
DRB4_0101	298	SRATERVRAGVLGEI	ERVRAGVLG	0.2108	5109.5	50.00
DRB4_0101	272	VTLNDKELNEESNFP	VTLNDKELN	0.2106	5121.9	50.00
DRB4_0101	436	VARSFADAGLDSVLS	ARSFADAGL	0.2102	5144.7	50.00
DRB4_0101	172	FIDTPGVGGLGQPHL	VGGLGQPHL	0.2100	5154.1	50.00
DRB4_0101	297	LSRATERVRAGVLGE	ERVRAGVLG	0.2098	5164.9	50.00
DRB4_0101	201	VVSDTSQEFTEPEMW	VSDTSQEFTE	0.2097	5171.3	50.00
DRB4_0101	534	RVRSEAKANVRRFVD	VRSEAKANV	0.2089	5218.6	50.00
DRB4_0101	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.2068	5334.0	50.00
DRB4_0101	230	VATKTDLYPRWREIV	DLYPRWREI	0.2066	5347.0	50.00
DRB4_0101	424	WAYQRSEALADDVAR	WAYQRSEAL	0.2042	5486.7	50.00
DRB4_0101	229	VVATKTDLYPRWREI	DLYPRWREI	0.2040	5499.3	50.00
DRB4_0101	145	RAPHAGGREVLRVEV	GREVLRVEV	0.2022	5610.1	50.00
DRB4_0101	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.2018	5631.3	50.00
DRB4_0101	89	LLNLPAARVGDEAT	LLNLPAARV	0.1994	5778.8	50.00
DRB4_0101	279	LNEESNFPPIVKFLS	FPAIVKFLS	0.1953	6043.0	50.00
DRB4_0101	202	VSDTSQEFTEPEMWF	VSDTSQEFTE	0.1923	6241.4	50.00
DRB4_0101	412	NAIATAVGDNFVWAY	VDNFVWAY	0.1916	6290.3	50.00
DRB4_0101	393	QIDSCDPTAHWAEIG	IDSCDPTAH	0.1885	6501.5	50.00
DRB4_0101	338	RLASDLERRKREAQQ	DLERRKREA	0.1871	6603.3	50.00
DRB4_0101	430	EALADDVARSFADAG	DVARSFADA	0.1868	6625.0	50.00
DRB4_0101	385	TVTEDAERQIDSCDP	ERQIDSCDP	0.1834	6875.5	50.00
DRB4_0101	596	QVAETERDNRIRELQ	RDNRIRELQ	0.1804	7100.1	50.00
DRB4_0101	205	TSQEFTEPEMWFVRQ	QEFTEPEMW	0.1798	7147.8	50.00
DRB4_0101	589	QATIAAAQVAETERD	ATIAAAQVA	0.1778	7300.5	50.00
DRB4_0101	438	RSFADAGLDSVLSAE	AGLDSVLSA	0.1773	7341.7	50.00
DRB4_0101	23	VTQPDDPRRVGIVVE	PRRVGVIVE	0.1764	7412.9	50.00
DRB4_0101	587	SLQATIAAAQVAETE	ATIAAAQVA	0.1743	7583.8	50.00
DRB4_0101	588	LQATIAAAQVAETER	ATIAAAQVA	0.1741	7601.6	50.00
DRB4_0101	12	RKRARKWGDVTQTQP	RKRARKWGD	0.1731	7684.7	50.00
DRB4_0101	336	RDRLASDLERRKREA	RDRLASDLE	0.1723	7752.3	50.00
DRB4_0101	337	DRLASDLERRKREAQ	DRLASDLER	0.1719	7784.6	50.00
DRB4_0101	590	ATIAAAQVAETERDN	ATIAAAQVA	0.1705	7900.3	50.00
DRB4_0101	16	ARKWGDVTQTQPDP	ARKWGDTVT	0.1682	8102.7	50.00
DRB4_0101	328	SVVNDPNLRDRLASD	PNLRDRLAS	0.1676	8155.9	50.00
DRB4_0101	204	DTSQEFTEPEMWFVR	QEFTEPEMW	0.1664	8260.6	50.00
DRB4_0101	429	SEALADDVARSFADA	DVARSFADA	0.1658	8319.2	50.00

DRB4_0101	428	RSEALADDVARSFAD	RSEALADDV	0.1652	8368.8	50.00
DRB4_0101	13	RKRARKWGDVTQPD	RKRARKWGD	0.1649	8392.3	50.00
DRB4_0101	203	SDTSQEFTPEPEMWFV	QEFTPEPEMW	0.1644	8446.5	50.00
DRB4_0101	383	FRTVTEDAERQIDSC	FRTVTEDAE	0.1624	8625.4	50.00
DRB4_0101	19	WGDTVTQPDDPRRVG	GDTVTQPDD	0.1610	8755.5	50.00
DRB4_0101	96	RVGDDEATVVITVVS	ATVVITVVS	0.1588	8968.9	50.00
DRB4_0101	274	LNDKELNEESNFPAI	LNEESNFPA	0.1566	9189.3	50.00
DRB4_0101	18	KWGDVTQPDPRRV	GDTVTQPDD	0.1565	9192.6	50.00
DRB4_0101	276	DKELNEESNFPAIVK	KELNEESNF	0.1564	9205.4	50.00
DRB4_0101	15	RARKWGDVTQPD	ARKWGDVT	0.1563	9210.7	50.00
DRB4_0101	427	RKSEALADDVARSFA	RSEALADDV	0.1560	9241.2	50.00
DRB4_0101	275	NDKELNEESNFPAIV	LNEESNFPA	0.1556	9283.1	50.00
DRB4_0101	17	RKWGDVTQPDPRR	GDTVTQPDD	0.1551	9339.6	50.00
DRB4_0101	20	GDTVTQPDPRRVGV	GDTVTQPDD	0.1548	9365.1	50.00
DRB4_0101	273	TLNDKELNEESNFPA	LNEESNFPA	0.1542	9428.8	50.00
DRB4_0101	90	LNLPAARVGDDEATV	LNLPAARVG	0.1508	9775.3	50.00
DRB4_0101	14	KRRKRWGDVTQPD	ARKWGDVT	0.1501	9850.4	50.00
DRB4_0101	142	VRRAPHAGGREVLR	VRRAPHAGG	0.1497	9895.2	50.00
DRB4_0101	411	ENAIATAVGDNFVWA	IATAVGNF	0.1489	9987.6	50.00
DRB4_0101	409	DVENAIATAVGNFV	IATAVGNF	0.1488	9998.9	50.00
DRB4_0101	410	VENAIATAVGDNFVW	IATAVGNF	0.1484	10041.4	50.00
DRB4_0101	143	VRRAPHAGGREVLRV	VRRAPHAGG	0.1456	10342.7	50.00
DRB4_0101	426	YQRSEALADDVARSF	LADDVARSF	0.1426	10688.4	50.00
DRB4_0101	125	PDGTTAAVDIPVDDI	AEDIPVDDI	0.1422	10738.4	50.00
DRB4_0101	408	NDVENAIATAVGNF	IATAVGNF	0.1371	11349.1	50.00
DRB4_0101	277	KELNEESNFPAIVKF	KELNEESNF	0.1322	11966.9	50.00
DRB4_0101	171	AFIDTPGVGGLGQPH	GVGGLGQPH	0.1321	11972.5	50.00
DRB4_0101	384	RTVTEDAERQIDSCD	VTEDAERQI	0.1314	12063.8	50.00
DRB4_0101	425	AYQRSEALADDVARS	RSEALADDV	0.1300	12251.5	50.00
DRB4_0101	397	CDPTAHWAEIGNDVE	CDPTAHWAE	0.1294	12322.2	50.00
DRB4_0101	93	PAARVGDDEATVVIT	AARVGDDEA	0.1277	12554.9	50.00
DRB4_0101	94	AARVGDDEATVVITV	AARVGDDEA	0.1271	12640.2	50.00
DRB4_0101	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.1270	12647.3	50.00
DRB4_0101	22	TVTQPDPRRVGVIV	DPRRVGVIV	0.1262	12767.8	50.00
DRB4_0101	95	ARVGDDEATVVITVV	EATVVITVV	0.1261	12775.2	50.00
DRB4_0101	404	AEIGNDVENAIATAV	AEIGNDVEN	0.1259	12805.1	50.00
DRB4_0101	406	IGNDVENAIATAVGD	IGNDVENAI	0.1257	12834.3	50.00
DRB4_0101	403	WAEIGNDVENAIATA	AEIGNDVEN	0.1255	12854.1	50.00
DRB4_0101	91	NLPAARVGDDEATVV	AARVGDDEA	0.1249	12948.6	50.00
DRB4_0101	92	LPAARVGDDEATVVI	AARVGDDEA	0.1229	13228.3	50.00
DRB4_0101	402	HWAEIGNDVENAIAT	AEIGNDVEN	0.1212	13475.3	50.00
DRB4_0101	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.1207	13542.3	50.00
DRB4_0101	405	EIGNDVENAIATAVG	IGNDVENAI	0.1200	13644.0	50.00
DRB4_0101	401	AHWAEIGNDVENAI	AEIGNDVEN	0.1187	13841.5	50.00
DRB4_0101	278	ELNEESNFPAIVKFL	LNEESNFPA	0.1168	14122.7	50.00
DRB4_0101	21	DTVTQPDPRRVGVI	DTVTQPD	0.1147	14447.6	50.00
DRB4_0101	407	GNDVENAIATAVGDN	GNDVENAIA	0.1137	14607.0	50.00
DRB4_0101	595	AQVAETERDNRIREL	ERDNRIREL	0.1135	14641.6	50.00
DRB4_0101	396	SCDPTAHWAEIGNDV	CDPTAHWAE	0.1124	14812.6	50.00
DRB4_0101	400	TAHWAEIGNDVENAI	IGNDVENAI	0.1111	15023.4	50.00
DRB4_0101	395	DSCDPTAHWAEIGND	CDPTAHWAE	0.1097	15252.2	50.00
DRB4_0101	144	RRAPHAGGREVLRVE	AGGREVLRV	0.1024	16508.1	50.00
DRB4_0101	398	DPTAHWAEIGNDVEN	AEIGNDVEN	0.0945	17994.2	50.00
DRB4_0101	594	AAQVAETERDNRIRE	AAQVAETER	0.0930	18280.9	50.00
DRB4_0101	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.0905	18785.2	50.00
DRB4_0101	124	PGDGTAAVDIPVDD	DGTAAVDI	0.0902	18846.9	50.00
DRB4_0101	399	PTAHWAEIGNDVENA	WAEIGNDVE	0.0900	18881.0	50.00
DRB4_0101	591	TIAAAQVAETERDNR	TIAAAQVAE	0.0856	19810.4	50.00
DRB4_0101	592	IAAAQVAETERDNR	QVAETERDN	0.0854	19855.7	50.00
DRB4_0101	593	AAAQVAETERDNRIR	AAQVAETER	0.0836	20226.5	50.00
DRB4_0101	123	AGPDGTTAAVDIPV	DGTAAVDI	0.0794	21170.3	50.00
DRB4_0101	122	AAGPDGTTAAVDIPV	DGTAAVDI	0.0701	23416.2	50.00
DRB4_0101	121	LAAGPDGTTAAVDIP	DGTAAVDI	0.0673	24130.9	50.00

Allele: DRB4_0101. Number of high binders 38. Number of weak binders 136. Number of peptides 626

Allele pos peptide core 1-log50k(aff) affinity(nM) Bind Level %Random

DRB5_0101	549	DISFVVSQSRDRLK	FVVSQSRD	0.8187	7.1	SB	0.30
DRB5_0101	548	DDISFVVSQSRDRL	SFVVSQSR	0.8177	7.2	SB	0.30
DRB5_0101	559	RDRLKMIQRLLRDHY	LKMIQRLLR	0.8150	7.4	SB	0.30
DRB5_0101	558	SRDLKMIQRLLRDH	LKMIQRLLR	0.8137	7.5	SB	0.40
DRB5_0101	557	QSRDLKMIQRLLRD	LKMIQRLLR	0.8048	8.3	SB	0.40
DRB5_0101	459	GTDFGRLKALGRMES	FGRLKALGR	0.8017	8.5	SB	0.80
DRB5_0101	460	TDFGRLKALGRMESK	FGRLKALGR	0.8017	8.5	SB	0.80
DRB5_0101	560	DRLKMIQRLLRDHYR	LKMIQRLLR	0.7971	9.0	SB	0.80
DRB5_0101	547	VDDISFVVSQSRDR	SFVVSQSR	0.7948	9.2	SB	0.80
DRB5_0101	550	ISFVVSQSRDRLK	FVVSQSRD	0.7925	9.4	SB	0.80
DRB5_0101	458	MGTDFGRLKALGRME	FGRLKALGR	0.7909	9.6	SB	0.80
DRB5_0101	556	KQSRDLKMIQRLLR	LKMIQRLLR	0.7798	10.8	SB	0.80
DRB5_0101	461	DFGRLKALGRMESKP	FGRLKALGR	0.7763	11.2	SB	0.80
DRB5_0101	457	VMGTDFGRLKALGRM	FGRLKALGR	0.7575	13.8	SB	2.00
DRB5_0101	546	FVDDISFVVSQSRD	SFVVSQSR	0.7442	15.9	SB	2.00
DRB5_0101	462	FGRLKALGRMESKPL	FGRLKALGR	0.7378	17.1	SB	2.00
DRB5_0101	551	SFVVSQSRDRLKMI	FVVSQSRD	0.7291	18.7	SB	2.00
DRB5_0101	52	GDLVQRLTRARQRIT	LVQRLTRAR	0.7276	19.1	SB	2.00
DRB5_0101	477	RRGHKMIIGMRGSYG	HKMIIGMRG	0.7227	20.1	SB	2.00
DRB5_0101	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.7222	20.2	SB	2.00
DRB5_0101	561	RLKMIQRLLRDHYRE	LKMIQRLLR	0.7102	23.0	SB	4.00
DRB5_0101	478	RGHKMIIGMRGSYGG	HKMIIGMRG	0.7094	23.2	SB	4.00
DRB5_0101	467	KALGRMESKPLRRGHK	RMESKPLRR	0.7058	24.1	SB	4.00
DRB5_0101	53	DLVQRLTRARQRITD	LVQRLTRAR	0.6988	26.0	SB	4.00
DRB5_0101	466	KALGRMESKPLRRGH	RMESKPLRR	0.6985	26.1	SB	4.00
DRB5_0101	85	LLNSLLNLPAAVGD	LLNLPAAV	0.6978	26.3	SB	4.00
DRB5_0101	479	GHKMIIGMRGSYGGV	HKMIIGMRG	0.6954	27.0	SB	4.00
DRB5_0101	83	SQLLNSLLNLPAAV	LLNLPAAV	0.6952	27.0	SB	4.00
DRB5_0101	84	QLLNLLNLPAAVVG	LLNLPAAV	0.6946	27.2	SB	4.00
DRB5_0101	476	LLRRGHKMIIGMRGSY	HKMIIGMRG	0.6885	29.1	SB	4.00
DRB5_0101	86	LNSLLNLPAAVGD	SLLNLPAAV	0.6883	29.1	SB	4.00
DRB5_0101	287	AIVKFLSEQVLSRAT	FLSEQVLSR	0.6879	29.3	SB	4.00
DRB5_0101	286	PAIVKFLSEQVLSRA	FLSEQVLSR	0.6843	30.5	SB	4.00
DRB5_0101	465	LKALGRMESKPLRRG	RMESKPLRR	0.6833	30.8	SB	4.00
DRB5_0101	480	HKMIIGMRGSYGGVV	HKMIIGMRG	0.6778	32.7	SB	4.00
DRB5_0101	464	RKALGRMESKPLRR	RMESKPLRR	0.6767	33.0	SB	4.00
DRB5_0101	289	VKFLSEQVLSRATER	FLSEQVLSR	0.6751	33.6	SB	4.00
DRB5_0101	54	LVQRLTRARQRITDP	LVQRLTRAR	0.6729	34.4	SB	4.00
DRB5_0101	288	IVKFLSEQVLSRATE	FLSEQVLSR	0.6723	34.7	SB	4.00
DRB5_0101	468	LGRMESKPLRRGHKM	RMESKPLRR	0.6696	35.7	SB	4.00
DRB5_0101	285	FPAIVKFLSEQVLSR	FLSEQVLSR	0.6681	36.3	SB	8.00
DRB5_0101	456	HVMGTDFGRLKALGR	FGRLKALGR	0.6631	38.3	SB	8.00
DRB5_0101	212	PEMWFVVRQAHQICPV	WFVVRQAHQI	0.6630	38.3	SB	8.00
DRB5_0101	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.6601	39.6	SB	8.00
DRB5_0101	420	DNFVWAYQRSEALAD	FVWAYQRSE	0.6600	39.6	SB	8.00
DRB5_0101	213	EMWFVVRQAHQICPVG	WFVVRQAHQI	0.6578	40.5	SB	8.00
DRB5_0101	50	ERGDVQRLTRARQR	LVQRLTRAR	0.6572	40.8	SB	8.00
DRB5_0101	87	NSLLNLPAAVGDDE	SLLNLPAAV	0.6563	41.2	SB	8.00
DRB5_0101	211	EPENWFVVRQAHQICP	WFVVRQAHQI	0.6547	41.9	SB	8.00
DRB5_0101	290	KFLSEQVLSRATERV	FLSEQVLSR	0.6488	44.7	SB	8.00
DRB5_0101	475	PLRRGHKMIIGMRGS	HKMIIGMRG	0.6483	44.9	SB	8.00
DRB5_0101	418	VGDNFVWAYQRSEAL	FVWAYQRSE	0.6441	47.0	SB	8.00
DRB5_0101	107	TVVSYSAQPSARLVL	SYSAQPSAR	0.6438	47.2	SB	8.00
DRB5_0101	258	MPIIAVSSLLRSHAV	IIAVSSLLR	0.6424	47.9	SB	8.00
DRB5_0101	108	VVSYSAQPSARLVLA	SYSAQPSAR	0.6400	49.2	SB	8.00
DRB5_0101	210	TEPEMWFVVRQAHQIC	WFVVRQAHQI	0.6391	49.6	SB	8.00
DRB5_0101	257	PMPPIIAVSSLLRSHA	IIAVSSLLR	0.6390	49.7	SB	8.00
DRB5_0101	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.6378	50.3	WB	8.00
DRB5_0101	88	SLLNLPAAVGDDEA	SLLNLPAAV	0.6322	53.5	WB	8.00
DRB5_0101	469	GRMESKPLRRGHKMI	RMESKPLRR	0.6299	54.8	WB	8.00
DRB5_0101	256	KMPPPIIAVSSLLRSH	IIAVSSLLR	0.6286	55.6	WB	8.00
DRB5_0101	481	HKMIIGMRGSYGGVIM	IIIGMRGSYG	0.6284	55.7	WB	8.00
DRB5_0101	259	PIIAVSSLLRSHAVT	IIAVSSLLR	0.6245	58.1	WB	8.00
DRB5_0101	291	FLSEQVLSRATERVR	FLSEQVLSR	0.6183	62.1	WB	8.00
DRB5_0101	82	KSQLLNSLLNLPAAV	SLLNLPAAV	0.6178	62.5	WB	8.00
DRB5_0101	529	QNRLLRVRSEAKANV	LLRVRSEAK	0.6175	62.7	WB	8.00
DRB5_0101	463	GRLKALGRMESKPLR	GRLKALGRM	0.6166	63.3	WB	8.00
DRB5_0101	260	PIIAVSSLLRSHAVTL	IIAVSSLLR	0.6160	63.7	WB	8.00
DRB5_0101	5	LCAYRDLRRKRARKW	LCAYRDLRR	0.6151	64.4	WB	8.00

DRB5_0101	255	RVPMPPIAVSSLLRS	IIAVSSLLR	0.6149	64.5	WB	8.00
DRB5_0101	109	VSYSAQPSARLVLA	SYSAQPSAR	0.6138	65.2	WB	8.00
DRB5_0101	214	MWFVRQAHQICPVGA	WFVRQAHQI	0.6118	66.7	WB	8.00
DRB5_0101	421	NFWLWAYQRSEALADD	FVWAYQRSE	0.6117	66.8	WB	8.00
DRB5_0101	530	NRLLRVRSEAKANVR	LLRVRSEAK	0.6110	67.3	WB	8.00
DRB5_0101	3	AGLCAYRDLRRKRAR	LCAYRDLRR	0.6100	68.0	WB	8.00
DRB5_0101	4	GLCAYRDLRRKRARK	LCAYRDLRR	0.6082	69.4	WB	8.00
DRB5_0101	528	KQNRLLRVRSEAKAN	LLRVRSEAK	0.6076	69.8	WB	8.00
DRB5_0101	106	ITVVSYSAQPSARLV	SYSAQPSAR	0.6075	69.9	WB	8.00
DRB5_0101	417	PAGDNFVWAYQRSEA	FVWAYQRSE	0.6072	70.1	WB	8.00
DRB5_0101	2	AVGLCAYRDLRRKRA	LCAYRDLRR	0.6037	72.8	WB	16.00
DRB5_0101	552	FVVKQSRDRLKMIQ	FVVKQSRD	0.6030	73.4	WB	16.00
DRB5_0101	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.6010	74.9	WB	16.00
DRB5_0101	531	RLLRVRSEAKANVRR	LLRVRSEAK	0.6008	75.2	WB	16.00
DRB5_0101	474	KPLRRGHKMIIGMRG	HKMIIGMRG	0.5992	76.5	WB	16.00
DRB5_0101	1	VPAGLCAYRDLRRKR	LCAYRDLRR	0.5960	79.2	WB	16.00
DRB5_0101	69	QVRVVIAGLLKQKGS	VVIAGLLKQ	0.5958	79.3	WB	16.00
DRB5_0101	70	VRVVIAGLLKQKGSQ	RVVIAGLLK	0.5919	82.7	WB	16.00
DRB5_0101	545	RFVDDISFVVKQSR	SFVVKQSR	0.5884	85.9	WB	16.00
DRB5_0101	110	SYSAQPSARLVLAAG	SYSAQPSAR	0.5852	89.0	WB	16.00
DRB5_0101	71	RVVIAGLLKQKGSQ	RVVIAGLLK	0.5831	91.0	WB	16.00
DRB5_0101	239	RWREIVNANAHLQR	IVNANAHL	0.5798	94.3	WB	16.00
DRB5_0101	416	TAVGDNFVWAYQRSE	FVWAYQRSE	0.5790	95.1	WB	16.00
DRB5_0101	105	VITVVSYSAQPSARL	SYSAQPSAR	0.5786	95.5	WB	16.00
DRB5_0101	68	PQVRVVIAGLLKQKQK	RVVIAGLLK	0.5774	96.8	WB	16.00
DRB5_0101	470	RMESKPLRRGHKMI	RMESKPLRR	0.5767	97.6	WB	16.00
DRB5_0101	515	AGLILGRMAYKEDKQ	LILGRMAYK	0.5745	99.9	WB	16.00
DRB5_0101	254	ARVPMPPIAVSSLLR	IIAVSSLLR	0.5732	101.3	WB	16.00
DRB5_0101	514	GAGLILGRMAYKEDK	LILGRMAYK	0.5717	102.9	WB	16.00
DRB5_0101	240	WREIVNANAHLQRA	IVNANAHL	0.5681	107.0	WB	16.00
DRB5_0101	238	PRWREIVNANAHLQ	IVNANAHL	0.5675	107.8	WB	16.00
DRB5_0101	527	DKQNRLLRVRSEAKA	LLRVRSEAK	0.5656	109.9	WB	16.00
DRB5_0101	55	VQRLTRARQRITDPQ	QRLTRARQR	0.5656	110.0	WB	16.00
DRB5_0101	516	GLILGRMAYKEDKQN	LILGRMAYK	0.5637	112.3	WB	16.00
DRB5_0101	49	NERGDLVQRLTRARQ	LVQRLTRAR	0.5601	116.8	WB	16.00
DRB5_0101	513	VGAGLILGRMAYKED	LILGRMAYK	0.5518	127.7	WB	16.00
DRB5_0101	241	REIVNANAHLQRAR	IVNANAHL	0.5482	132.8	WB	16.00
DRB5_0101	0	MVPAGLCAYRDLRRK	LCAYRDLRR	0.5464	135.4	WB	16.00
DRB5_0101	67	DPQVRVVIAGLLKQG	RVVIAGLLK	0.5455	136.7	WB	16.00
DRB5_0101	532	LLRVRSEAKANVRRF	LLRVRSEAK	0.5439	139.1	WB	16.00
DRB5_0101	237	YPRWREIVNANAHL	IVNANAHL	0.5428	140.7	WB	16.00
DRB5_0101	422	FVWAYQRSEALADDV	FVWAYQRSE	0.5401	144.9	WB	16.00
DRB5_0101	81	GKSQLLNSLLNLPAA	LLNSLLNLP	0.5382	148.0	WB	16.00
DRB5_0101	512	SVGAGLILGRMAYKE	LILGRMAYK	0.5377	148.7	WB	16.00
DRB5_0101	6	CAYRDLRRKRARKWG	AYRDLRRKR	0.5366	150.4	WB	16.00
DRB5_0101	603	DNRIRELQRQLGILS	RIRELQRQL	0.5365	150.6	WB	16.00
DRB5_0101	604	NRIRELQRQLGILSQ	RIRELQRQL	0.5246	171.3	WB	16.00
DRB5_0101	48	LNERGDLVQRLTRAR	LVQRLTRAR	0.5221	176.0	WB	16.00
DRB5_0101	80	QGKSQLLNSLLNLP	QLNSLLNLP	0.5212	177.8	WB	32.00
DRB5_0101	72	VVIAGLLKQKGSQ	VVIAGLLKQ	0.5183	183.5	WB	32.00
DRB5_0101	482	MIIGMRGSYGGVMI	IIGMRGSYG	0.5143	191.5	WB	32.00
DRB5_0101	242	EIVNANAHLQRARV	IVNANAHL	0.5076	205.9	WB	32.00
DRB5_0101	261	IAVSSLLRSHAVTLN	IAVSSLLRS	0.5061	209.4	WB	32.00
DRB5_0101	7	AYRDLRRKRARKWGD	LRRKRARKW	0.5030	216.5	WB	32.00
DRB5_0101	66	TDPQVRVVIAGLLKQ	RVVIAGLLK	0.5003	222.8	WB	32.00
DRB5_0101	555	SKQSRDLKMIQRLL	RLKMIQRLL	0.4996	224.6	WB	32.00
DRB5_0101	493	VMIGMLSSVVGGL	VMIGMLSSV	0.4980	228.5	WB	32.00
DRB5_0101	215	WFVRQAHQICPVGAV	WFVRQAHQI	0.4967	231.7	WB	32.00
DRB5_0101	38	LIDHTIAIAKLNERG	IDHTIAIAK	0.4949	236.2	WB	32.00
DRB5_0101	533	LRVRSEAKANVRRFV	RVRSEAKAN	0.4932	240.6	WB	32.00
DRB5_0101	294	EQVLSRATERVRAGV	QVLSRATER	0.4929	241.5	WB	32.00
DRB5_0101	293	SEQVLSRATERVRAG	QVLSRATER	0.4913	245.6	WB	32.00
DRB5_0101	473	SKPLRRGHKMIIGMR	GHKMIIGMR	0.4858	260.7	WB	32.00
DRB5_0101	37	ELIDHTIAIAKLNER	IDHTIAIAK	0.4848	263.7	WB	32.00
DRB5_0101	517	LILGRMAYKEDKQNR	LILGRMAYK	0.4845	264.5	WB	32.00
DRB5_0101	56	QRLTRARQRITDPQV	QRLTRARQR	0.4844	264.6	WB	32.00
DRB5_0101	605	RIRELQRQLGILSQV	RIRELQRQL	0.4844	264.8	WB	32.00
DRB5_0101	39	IDHTIAIAKLNERGD	IAIAKLNER	0.4838	266.6	WB	32.00
DRB5_0101	292	LSEQVLSRATERVRA	QVLSRATER	0.4827	269.7	WB	32.00
DRB5_0101	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.4813	273.6	WB	32.00

DRB5_0101	295	QVLSRATERVRAGVL	QVLSRATER	0.4783	282.7	WB	32.00
DRB5_0101	33	GVIVELIDHTIAIAK	IDHTIAIAK	0.4763	289.1	WB	32.00
DRB5_0101	444	GLDSVLSAELSPHVM	LDSVLSAEL	0.4739	296.6	WB	32.00
DRB5_0101	494	VMIGMLSSVVGLGLF	LSSVVGLGL	0.4737	297.1	WB	32.00
DRB5_0101	243	IVNANAHLQRARVP	IVNANAHL	0.4728	300.0	WB	32.00
DRB5_0101	511	LSVGAGLILGRMAYK	LILGRMAYK	0.4713	304.9	WB	32.00
DRB5_0101	492	GVVMIGMLSSVVGLG	VMIGMLSSV	0.4691	312.5	WB	32.00
DRB5_0101	73	VIAGLLKQKSQLLN	GLLKQKKSQ	0.4687	313.8	WB	32.00
DRB5_0101	602	RDNRIRELQRQLGIL	RIRELQRQL	0.4592	347.6	WB	32.00
DRB5_0101	443	AGLDSVLSAELSPHV	LDSVLSAEL	0.4578	353.0	WB	32.00
DRB5_0101	104	VVITVVSYSQAQPSAR	SYSQAQPSAR	0.4561	359.4	WB	32.00
DRB5_0101	495	MIGMLSSVVGLGLFN	GMLSSVVGL	0.4558	360.7	WB	32.00
DRB5_0101	445	LDSVLSAELSPHVMG	LDSVLSAEL	0.4552	363.1	WB	32.00
DRB5_0101	34	VIVELIDHTIAIAKL	IDHTIAIAK	0.4540	368.0	WB	32.00
DRB5_0101	154	VLRVEVGAPSPLLRG	LRVEVGAPS	0.4532	371.2	WB	32.00
DRB5_0101	208	EFTEPEMWFVRQAHQ	MWFVRQAHQ	0.4491	387.9	WB	32.00
DRB5_0101	79	KQKSQLLNLSLNLNLP	SQLLNSLLN	0.4460	401.3	WB	32.00
DRB5_0101	8	YRDLRRKRARKWGDT	LRRKRARKW	0.4448	406.4	WB	32.00
DRB5_0101	282	ESNFPAIVKFLSEQV	IVKFLSEQV	0.4447	406.9	WB	32.00
DRB5_0101	491	GGVVMIGMLSSVVGL	VMIGMLSSV	0.4446	407.0	WB	32.00
DRB5_0101	35	IVELIDHTIAIAKLN	IDHTIAIAK	0.4363	445.4	WB	32.00
DRB5_0101	74	IAGLLKQKSQLLNS	GLLKQKKSQ	0.4350	451.6	WB	32.00
DRB5_0101	601	ERDNRIRELQRQLGI	RIRELQRQL	0.4344	454.5	WB	32.00
DRB5_0101	284	NFPAIVKFLSEQVLS	IVKFLSEQV	0.4339	457.2	WB	32.00
DRB5_0101	36	VELIDHTIAIAKLNE	IDHTIAIAK	0.4315	469.4	WB	32.00
DRB5_0101	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.4313	470.2	WB	32.00
DRB5_0101	40	DHTIAIAKLNERGDL	IAIAKLNER	0.4248	504.2		32.00
DRB5_0101	606	IRELQRQLGILSQVN	LQRQLGILS	0.4234	512.0		32.00
DRB5_0101	9	RDLRRKRARKWGDV	LRRKRARKW	0.4230	514.5		32.00
DRB5_0101	483	IIGMRGSYGGVVMIG	IIGMRGSYG	0.4225	517.3		32.00
DRB5_0101	496	IGMLSSVVGLGLFNP	GMLSSVVGL	0.4224	517.9		32.00
DRB5_0101	490	YGGVVMIGMLSSVVG	VMIGMLSSV	0.4179	543.8		32.00
DRB5_0101	153	EVL RVEVGAPSPLLR	LRVEVGAPS	0.4163	553.1		32.00
DRB5_0101	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.4106	588.2		50.00
DRB5_0101	579	EITRSLTESLQATIA	RSLTESLQA	0.4101	591.6		50.00
DRB5_0101	580	ITRSLTESLQATIAA	RSLTESLQA	0.4086	600.9		50.00
DRB5_0101	600	TRDNRIRELQRQLG	RIRELQRQL	0.4038	633.4		50.00
DRB5_0101	415	ATAVGDNFVWAYQRS	DNFVWAYQR	0.4038	633.5		50.00
DRB5_0101	155	LRVEVGAPSPLLRGG	LRVEVGAPS	0.4029	639.4		50.00
DRB5_0101	446	DSVLSAELSPHVMGT	LSAELSPHV	0.4024	642.7		50.00
DRB5_0101	65	ITDPQVRVVIAGLLK	RVVIAGLLK	0.4002	658.1		50.00
DRB5_0101	489	SYGGVVMIGMLSSVV	GVVMIGMLS	0.3997	661.7		50.00
DRB5_0101	544	RNFVDDISFVSKQS	ISFVSKQS	0.3989	667.5		50.00
DRB5_0101	283	RRFPAIVKFLSEQVL	IVKFLSEQV	0.3987	669.3		50.00
DRB5_0101	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.3969	682.5		50.00
DRB5_0101	89	LLNLPAARVGDEAT	LLNLPAARV	0.3961	688.1		50.00
DRB5_0101	78	LKQKSQLLNLSLNL	SQLLNSLLN	0.3942	702.6		50.00
DRB5_0101	625	GLEPTLTPRASLGRA	LTPRASLGR	0.3936	707.0		50.00
DRB5_0101	553	VVSKQSRDRLKMIQR	VVSKQSRDR	0.3925	715.9		50.00
DRB5_0101	442	DAGLDSVLSAELSPH	LDSVLSAEL	0.3920	719.4		50.00
DRB5_0101	581	TRSLTESLQATIAAA	RSLTESLQA	0.3917	721.6		50.00
DRB5_0101	624	AGLEPTLTPRASLGR	LTPRASLGR	0.3896	738.3		50.00
DRB5_0101	497	GMLSSVVGLGLFNPL	LSSVVGLGL	0.3892	741.9		50.00
DRB5_0101	578	EEITRSLTESLQATI	RSLTESLQA	0.3880	751.3		50.00
DRB5_0101	41	HTIAIAKLNERGDLV	IAIAKLNER	0.3880	751.4		50.00
DRB5_0101	236	LYPRWREIVNANAHA	WREIVNANA	0.3880	751.6		50.00
DRB5_0101	10	DLRRKRARKWGDVTV	LRRKRARKW	0.3876	754.7		50.00
DRB5_0101	57	RLTRARQRITDPQVR	RLTRARQRI	0.3852	774.1		50.00
DRB5_0101	447	SVLSAELSPHVMGTD	LSAELSPHV	0.3822	800.1		50.00
DRB5_0101	207	QEFTPEMWFVRQAH	FTEPEMWFV	0.3813	808.1		50.00
DRB5_0101	111	YSAQPSARLVLAAGP	YSAQPSARL	0.3810	810.2		50.00
DRB5_0101	423	VWAYQRSEALADDVA	WAYQRSEAL	0.3804	815.9		50.00
DRB5_0101	607	RELQRQLGILSQVND	LQRQLGILS	0.3796	822.5		50.00
DRB5_0101	32	VGIVELIDHTIAIA	GVIVELIDH	0.3792	825.9		50.00
DRB5_0101	103	TVVITVVSYSQAQPSA	VITVVSYS	0.3777	839.8		50.00
DRB5_0101	563	KMIQRLLRDHYREIA	KMIQRLLRD	0.3775	841.6		50.00
DRB5_0101	253	RARVPMPPIIAVSLL	ARVPMPPIA	0.3771	845.6		50.00
DRB5_0101	327	LSVNDPNLRDRLAS	VVNDPNLRD	0.3754	860.8		50.00
DRB5_0101	582	RSLTESLQATIAAAQ	RSLTESLQA	0.3752	862.9		50.00
DRB5_0101	247	NAAHLQRARVPMPPII	AAHLQRARV	0.3751	863.8		50.00

DRB5_0101	75	AGLLKQGKSQLLNSL	GLLKQGKSQ	0.3751	863.9	50.00
DRB5_0101	326	ELSVVNDPNLRDRLA	VVNDPNLRD	0.3738	875.5	50.00
DRB5_0101	374	DVDHDLRTRFRFTVTE	VHDLRTRFR	0.3726	887.6	50.00
DRB5_0101	375	VDHDLRTRFRFTVTE	DHDLRTRFR	0.3715	898.0	50.00
DRB5_0101	472	ESKPLRRGHKMIIGM	RGHKMIIGM	0.3703	909.8	50.00
DRB5_0101	608	ELQRQLGILSQVNDN	LQRQLGILS	0.3702	910.5	50.00
DRB5_0101	31	RVGVIVELIDHTIAI	VIVELIDHT	0.3697	915.8	50.00
DRB5_0101	30	RRVGVIVELIDHTIA	GVIVELIDH	0.3694	918.3	50.00
DRB5_0101	325	SELSVVNDPNLRDRL	SVVNDPNLR	0.3682	930.3	50.00
DRB5_0101	281	EESNFPAIVKFLSEQ	FPAIVKFLS	0.3678	934.8	50.00
DRB5_0101	102	ATVVITVVSYSQAQS	VITVVSYSA	0.3666	946.7	50.00
DRB5_0101	317	EQLAVSLGSELSVVN	LAVSLGSEL	0.3657	956.1	50.00
DRB5_0101	246	ANAAHLQARARVPMPI	AAHLQARARV	0.3651	962.9	50.00
DRB5_0101	609	LQRQLGILSQVNDNL	LQRQLGILS	0.3630	984.5	50.00
DRB5_0101	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.3610	1006.2	50.00
DRB5_0101	248	AAHLQARARVPMPIIA	AAHLQARARV	0.3610	1006.5	50.00
DRB5_0101	250	HLQARARVPMPIIAVS	ARVPMPIIA	0.3604	1013.0	50.00
DRB5_0101	488	GSYGGVVMIGMLSSV	GVVMIGMLS	0.3601	1015.6	50.00
DRB5_0101	296	VLSRATERVRAGVLG	VLSRATERV	0.3583	1035.7	50.00
DRB5_0101	623	LAGLEPTLTPRASLG	LEPTLTPRA	0.3576	1044.3	50.00
DRB5_0101	235	DLYPRWREIVNANAA	RWREIVNAN	0.3566	1055.6	50.00
DRB5_0101	249	AHLQARARVPMPIIAV	ARVPMPIIA	0.3556	1066.5	50.00
DRB5_0101	60	RARQRITDPQVRVVI	QRITDPQVR	0.3555	1067.7	50.00
DRB5_0101	252	QARARVPMPIIAVSSL	ARVPMPIIA	0.3553	1069.9	50.00
DRB5_0101	116	SARLVLAAGPDGTTA	RLVLAAGPD	0.3541	1083.8	50.00
DRB5_0101	264	SSLLRSHAVTLNDKE	LLRSHAVTL	0.3540	1084.9	50.00
DRB5_0101	554	VSKQSRDRLKMIQRL	DRLKMIQRL	0.3525	1102.7	50.00
DRB5_0101	307	GVLGEIRSATEQLAV	LGEIRSATE	0.3523	1105.0	50.00
DRB5_0101	29	PRRVGVIVELIDHTI	GVIVELIDH	0.3523	1105.7	50.00
DRB5_0101	577	AEIEITRSLTESLQAT	RSLTESLQA	0.3519	1109.9	50.00
DRB5_0101	441	ADAGLDSVLSAELSP	LDSVLSAEL	0.3515	1114.9	50.00
DRB5_0101	234	TDLYPRWREIVNANA	PRWREIVNA	0.3514	1116.6	50.00
DRB5_0101	306	AGVLGEIRSATEQLA	VLGEIRSAT	0.3507	1124.5	50.00
DRB5_0101	61	ARQRITDPQVRVVI	QRITDPQVR	0.3504	1128.7	50.00
DRB5_0101	373	ADVVDHDLRTRFRFTV	DHDLRTRFR	0.3504	1128.9	50.00
DRB5_0101	424	WAYQRSEALADDVAR	WAYQRSEAL	0.3489	1146.9	50.00
DRB5_0101	305	RAGVLGEIRSATEQAL	VLGEIRSAT	0.3484	1153.0	50.00
DRB5_0101	43	IAIAKLNERGDLVQR	IAIAKLNER	0.3478	1160.8	50.00
DRB5_0101	101	EATVVITVVSYSQAQP	VITVVSYSA	0.3471	1169.8	50.00
DRB5_0101	574	REIAEEITRSLTESL	REIAEEITR	0.3468	1173.0	50.00
DRB5_0101	169	GLAFIDTPGVGGLGQ	FIDTPGVGG	0.3464	1178.3	50.00
DRB5_0101	251	LQRARVPMPIIAVSS	ARVPMPIIA	0.3463	1179.2	50.00
DRB5_0101	156	RVEVGAPSPLLRGGL	VGAPSPLLR	0.3462	1180.4	50.00
DRB5_0101	318	QLAVSLGSELSVVND	LAVSLGSEL	0.3460	1182.8	50.00
DRB5_0101	622	NLAGLEPTLTPRASL	LEPTLTPRA	0.3455	1190.1	50.00
DRB5_0101	206	SQEFTEPEMWFVRQA	FTEPEMWFV	0.3449	1197.3	50.00
DRB5_0101	245	NANAAHLQARARVPM	AAHLQARARV	0.3447	1200.4	50.00
DRB5_0101	316	TEQLAVSLGSELSVV	LAVSLGSEL	0.3435	1215.3	50.00
DRB5_0101	115	SARLVLAAGPDGTT	RLVLAAGPD	0.3415	1242.5	50.00
DRB5_0101	62	QRITDPQVRVVIAG	QRITDPQVR	0.3405	1256.4	50.00
DRB5_0101	152	RVRITRVEVGAPSPLL	LRVEVGAPS	0.3400	1263.1	50.00
DRB5_0101	334	NLRDRLASDLERRKR	DRLASDLER	0.3396	1268.4	50.00
DRB5_0101	376	DHDLRTRFRFTVTE	DHDLRTRFR	0.3394	1271.7	50.00
DRB5_0101	244	VNANAAHLQARARVPM	AAHLQARARV	0.3391	1275.4	50.00
DRB5_0101	440	FADAGLDSVLSAELS	LDSVLSAEL	0.3380	1290.7	50.00
DRB5_0101	303	RVRAGVLGEIRSATE	RAGVLGEIR	0.3375	1297.2	50.00
DRB5_0101	324	GSELSVVNDPNLRDR	SVVNDPNLR	0.3365	1311.5	50.00
DRB5_0101	279	LNEESNFPAIVKFLS	SNFPAIVKF	0.3359	1320.0	50.00
DRB5_0101	170	LAFIDTPGVGGLGQP	FIDTPGVGG	0.3358	1322.1	50.00
DRB5_0101	280	NEESNFPAIVKFLSE	SNFPAIVKF	0.3356	1324.4	50.00
DRB5_0101	223	ICPVGAVVATKTDLY	VGAVVATKT	0.3350	1333.1	50.00
DRB5_0101	455	PHVMGTDFGRLKALG	VMGTDFGRL	0.3342	1344.8	50.00
DRB5_0101	572	HYEIAEEITRSLTE	REIAEEITR	0.3335	1354.2	50.00
DRB5_0101	76	GLLKQGKSQLLNSLL	GLLKQGKSQ	0.3325	1368.9	50.00
DRB5_0101	225	PVGAVVATKTDLYPR	VGAVVATKT	0.3325	1369.5	50.00
DRB5_0101	335	LRDRLASDLERRKRE	DRLASDLER	0.3316	1383.5	50.00
DRB5_0101	11	LRRKRARKWGDVTQ	LRRKRARKW	0.3314	1385.6	50.00
DRB5_0101	224	CPVGAVVATKTDLYP	VGAVVATKT	0.3314	1386.6	50.00
DRB5_0101	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.3307	1396.1	50.00
DRB5_0101	63	QRITDPQVRVVIAGL	QRITDPQVR	0.3305	1398.7	50.00

DRB5_0101	308	VLGEIRSATEQLAVS	IRSATEQLA	0.3301	1405.5	50.00
DRB5_0101	304	VRAGVLGEIRSATEQ	RAGVLGEIR	0.3296	1412.5	50.00
DRB5_0101	226	VGAVVATKTDLYPRW	VVATKTDLY	0.3292	1419.8	50.00
DRB5_0101	168	GGLAFIDTPGVGGGL	FIDTPGVGG	0.3286	1428.3	50.00
DRB5_0101	571	DHYREIAEEITRSLT	REIAEEITR	0.3285	1430.7	50.00
DRB5_0101	599	ETERDNRIRELQRQL	RIRELQRQL	0.3284	1431.5	50.00
DRB5_0101	323	LGSELSVVNDPNLRD	SVVNDPNLR	0.3280	1437.8	50.00
DRB5_0101	487	RGSYGGVVMIGMLS	GVVMIGMLS	0.3275	1445.7	50.00
DRB5_0101	100	DEATVVITVVSYSQA	VITVVSYSA	0.3267	1458.2	50.00
DRB5_0101	205	TSQEFTEPEMWFVRQ	FTEPEMWFV	0.3252	1482.0	50.00
DRB5_0101	117	ARLVLAAGPDGTTAA	LVLAAAGPDG	0.3249	1487.4	50.00
DRB5_0101	319	LAVSLGSELSVVNDP	LAVSLGSEL	0.3244	1495.4	50.00
DRB5_0101	448	VLSAELSPHVMGTDF	LSAELSPHV	0.3235	1508.9	50.00
DRB5_0101	486	MRGSYGGVVMIGMLS	GVVMIGMLS	0.3225	1526.7	50.00
DRB5_0101	114	QPSARLVLAAGPDGT	ARLVLAAGP	0.3210	1551.0	50.00
DRB5_0101	265	LLRSHAVTLNDKEL	LLRSHAVTL	0.3203	1563.6	50.00
DRB5_0101	570	RDHYREIAEEITRSL	REIAEEITR	0.3202	1564.4	50.00
DRB5_0101	576	IAEEITRSLTESLQA	ITRSLTESL	0.3184	1595.9	50.00
DRB5_0101	159	VGAPSPLLRGGLAFI	VGAPSPLLR	0.3179	1604.0	50.00
DRB5_0101	372	TADVHDHLRTRFRTV	VDHLRTRF	0.3176	1608.9	50.00
DRB5_0101	518	ILGRMAYKEDKQNR	ILGRMAYKE	0.3175	1610.4	50.00
DRB5_0101	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.3166	1626.5	50.00
DRB5_0101	525	KEDQONRLLRVRSEA	QNRLLRVR	0.3161	1635.4	50.00
DRB5_0101	167	RGGKAFIDTPGVGG	FIDTPGVGG	0.3159	1639.4	50.00
DRB5_0101	77	LLKQKSQLLNSLLN	SQLLNSLLN	0.3154	1647.9	50.00
DRB5_0101	141	TDVRRAPHAGGREVL	RRAPHAGGR	0.3154	1648.7	50.00
DRB5_0101	621	DNLAGLEPTLTTRAS	LAGLEPTLT	0.3151	1653.3	50.00
DRB5_0101	498	MLSSVVGLGLFNPLS	LSSVVGLGL	0.3145	1663.7	50.00
DRB5_0101	59	TRARQRITDPQVRV	QRITDPQVR	0.3144	1665.1	50.00
DRB5_0101	204	DSQEFTEPEMWFVR	FTEPEMWFV	0.3134	1684.2	50.00
DRB5_0101	278	ELNEESNFPAIVKFL	SNFPAIVKF	0.3134	1684.5	50.00
DRB5_0101	157	VEVGAPSPLLRGGLA	VGAPSPLLR	0.3133	1685.2	50.00
DRB5_0101	328	SVVNDPNLRDRLASD	VVNDPNLRD	0.3133	1685.5	50.00
DRB5_0101	573	YREIAEEITRSLTES	REIAEEITR	0.3130	1692.0	50.00
DRB5_0101	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.3116	1716.5	50.00
DRB5_0101	439	SFADAGLDSVLSAEL	LDSVLSAEL	0.3115	1718.9	50.00
DRB5_0101	151	REVLRVEVGAPSPL	LRVEVGAPS	0.3114	1720.7	50.00
DRB5_0101	47	KLNERGDLVQRLTRA	GDLVQRLTR	0.3114	1721.3	50.00
DRB5_0101	266	LLRSHAVTLNDKELN	LLRSHAVTL	0.3108	1731.9	50.00
DRB5_0101	499	LSSVVGLGLFNPLSV	LGLFNPLSV	0.3099	1749.5	50.00
DRB5_0101	378	DLRTRFRFTVTEAER	RTRFRFTVTE	0.3086	1773.6	50.00
DRB5_0101	302	ERVLAGVLGEIRSAT	RAGVLGEIR	0.3085	1774.8	50.00
DRB5_0101	377	HDLRTRFRFTVTEDAE	RTRFRFTVTE	0.3078	1789.8	50.00
DRB5_0101	164	PLLRGGKAFIDTPGV	LAFIDTPGV	0.3070	1804.8	50.00
DRB5_0101	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.3065	1814.5	50.00
DRB5_0101	379	LRTRFRFTVTEAERQ	RTVTEAER	0.3046	1851.7	50.00
DRB5_0101	471	MESKPLRRGHKMIIG	LRRGHKMI	0.3020	1904.9	50.00
DRB5_0101	380	RTRFRFTVTEAERQI	RTVTEAER	0.3016	1913.3	50.00
DRB5_0101	620	NDNLAGLEPTLTPTA	LAGLEPTLT	0.3006	1934.7	50.00
DRB5_0101	28	DRRGVIVIVELIDHT	GVIVELIDH	0.2997	1953.9	50.00
DRB5_0101	166	LLRGGKAFIDTPGVG	LAFIDTPGV	0.2991	1966.3	50.00
DRB5_0101	333	PNLRDRLASDLERRK	DRLASDLER	0.2987	1973.6	50.00
DRB5_0101	277	KELNEESNFPAIVKF	SNFPAIVKF	0.2979	1991.6	50.00
DRB5_0101	140	STDVRRAPHAGGREV	RRAPHAGGR	0.2974	2001.8	50.00
DRB5_0101	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.2967	2017.6	50.00
DRB5_0101	309	LGEIRSATEQLAVSL	IRSATEQLA	0.2965	2021.0	50.00
DRB5_0101	454	SPHVMGTDFGRLKAL	HVMGTDFGR	0.2963	2025.7	50.00
DRB5_0101	158	EVGAPSPLLRGGLAF	VGAPSPLLR	0.2957	2039.0	50.00
DRB5_0101	543	VRRFVDDISFVSKQ	RRFVDDISF	0.2953	2047.4	50.00
DRB5_0101	355	QQTALWQQVLGDGFN	ALWQQVLGD	0.2948	2059.5	50.00
DRB5_0101	569	LRDHYREIAEEITRS	REIAEEITR	0.2945	2065.3	50.00
DRB5_0101	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.2940	2076.4	50.00
DRB5_0101	564	MIQRLLRDHYREIAE	QLLLRDHYR	0.2937	2084.1	50.00
DRB5_0101	354	VQQTALWQQVLGDGF	ALWQQVLGD	0.2934	2091.0	50.00
DRB5_0101	233	KTDLYPRWREIVNAN	DLYPRWREI	0.2927	2106.5	50.00
DRB5_0101	322	SLGSELSVVNDPNLR	LGSELSVVN	0.2926	2108.2	50.00
DRB5_0101	58	LTRARQRITDPQVRV	QRITDPQVR	0.2926	2109.4	50.00
DRB5_0101	313	RSATEQLAVSLGSEL	LAVSLGSEL	0.2910	2146.5	50.00
DRB5_0101	357	TALWQQVLGDGFNDL	ALWQQVLGD	0.2879	2217.9	50.00
DRB5_0101	99	DDEATVVITVVSYS	VITVVSYS	0.2879	2219.8	50.00

DRB5_0101	314	SATEQLAVSLGSELS	LAVSLGSEL	0.2877	2224.2	50.00
DRB5_0101	165	LLRGGLAFIDTPGVG	LAFIDTPGV	0.2866	2250.0	50.00
DRB5_0101	163	SPLLRRGGLAFIDTPG	PLLRRGGLAF	0.2844	2303.6	50.00
DRB5_0101	484	IGMRGSGYGGVVMIGM	MRGSGYGGVV	0.2841	2312.6	50.00
DRB5_0101	535	VRSEAKANVRRFVDD	SEAKANVRR	0.2838	2320.3	50.00
DRB5_0101	336	RDRLASDLERRKREA	RLASDLERR	0.2835	2326.4	50.00
DRB5_0101	542	NVRRFVDDISFVVSK	RRFVDDISF	0.2828	2345.5	50.00
DRB5_0101	352	QAVQQTALWQQVLGD	AVQQTALWQ	0.2817	2371.8	50.00
DRB5_0101	311	EIRSATEQLAVSLGS	IRSATEQLA	0.2813	2384.2	50.00
DRB5_0101	113	AQPSARLVLAAGPDG	ARLVLAAGP	0.2803	2410.0	50.00
DRB5_0101	504	GLGLFNPLSVGAGLI	LFNPLSVGA	0.2787	2450.3	50.00
DRB5_0101	297	LSRATERVRAGVLGE	LSRATERVR	0.2780	2468.6	50.00
DRB5_0101	162	PSPLLRRGGLAFIDTP	LRGGLAFID	0.2779	2473.4	50.00
DRB5_0101	356	QTALWQQVLGDGFND	ALWQQVLGD	0.2752	2546.6	50.00
DRB5_0101	310	GEIRSATEQLAVSLG	IRSATEQLA	0.2744	2568.6	50.00
DRB5_0101	161	APSPLLRRGGLAFIDT	LRGGLAFID	0.2739	2581.4	50.00
DRB5_0101	510	PLSVGAGLILGRMAY	GLILGRMAY	0.2734	2596.2	50.00
DRB5_0101	524	YKEDKQNRLLRVRSE	QNRLLRVRS	0.2727	2616.4	50.00
DRB5_0101	171	AFIDTPGVGGLGQPH	FIDTPGVGG	0.2724	2624.2	50.00
DRB5_0101	371	LTADVHDHLRTRFRT	VDHLRTRF	0.2716	2645.4	50.00
DRB5_0101	142	DVRRAPHAGGREVLR	RRAPHAGGR	0.2714	2653.1	50.00
DRB5_0101	227	GAVVATKTDLYPRWR	VVATKTDLY	0.2713	2654.7	50.00
DRB5_0101	222	QICPVGAVVATKTDL	VGAVVATKT	0.2709	2665.6	50.00
DRB5_0101	583	LTESLQATIAAAQV	LTESLQATI	0.2704	2681.0	50.00
DRB5_0101	610	QLGILSQVNDNLA	QLGILSQVN	0.2698	2697.8	50.00
DRB5_0101	523	AYKEDKQNRLLRVRS	QNRLLRVRS	0.2695	2708.3	50.00
DRB5_0101	312	IRSATEQLAVSLGSE	IRSATEQLA	0.2692	2716.9	50.00
DRB5_0101	221	HQICPVGAVVATKTD	VGAVVATKT	0.2690	2721.2	50.00
DRB5_0101	611	RQLGILSQVNDNLAG	QLGILSQVN	0.2690	2721.5	50.00
DRB5_0101	353	AVQQTALWQQVLGDG	ALWQQVLGD	0.2689	2724.3	50.00
DRB5_0101	160	GAPSPLLRRGGLAFID	PLLRRGGLAF	0.2679	2754.0	50.00
DRB5_0101	453	LSPHVMGTDGFRLLKA	HVMGTDGFR	0.2666	2794.4	50.00
DRB5_0101	337	DRLASDLERRKREAQ	RLASDLERR	0.2663	2802.7	50.00
DRB5_0101	381	TRFRTVTEAERQID	RTVTEAER	0.2660	2810.9	50.00
DRB5_0101	139	ISTDVRRAPHAGGRE	TDVRRAPHA	0.2654	2831.6	50.00
DRB5_0101	565	IQLLRDRHYREIAEE	QRLLRDRHYR	0.2651	2840.0	50.00
DRB5_0101	138	DIRTDVRRAPHAGGR	TDVRRAPHA	0.2639	2876.8	50.00
DRB5_0101	220	AHQICPVGAVVATKT	PVGAVVATK	0.2633	2894.5	50.00
DRB5_0101	520	GRMAYKEDKQNRLLR	MAYKEDKQN	0.2628	2912.3	50.00
DRB5_0101	358	ALWQQVLGDGFNDLT	ALWQQVLGD	0.2625	2920.4	50.00
DRB5_0101	414	IATAVGDNFVWAYQR	DNFVWAYQR	0.2621	2932.2	50.00
DRB5_0101	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.2614	2954.2	50.00
DRB5_0101	584	LTESLQATIAAAQVA	LTESLQATI	0.2611	2964.0	50.00
DRB5_0101	536	RSEAKANVRRFVDDI	SEAKANVRR	0.2611	2966.4	50.00
DRB5_0101	485	GMRGSGYGGVVMIGML	YGGVVMIGM	0.2609	2972.3	50.00
DRB5_0101	575	EIAEEITRSLTESLQ	EETRSLTE	0.2606	2981.2	50.00
DRB5_0101	150	GGREVLRVEVGAPSP	LRVEVGAPS	0.2598	3008.9	50.00
DRB5_0101	332	DPNLRDRLASDLERR	DRLASDLER	0.2586	3046.9	50.00
DRB5_0101	568	LLRDHYREIAEEITR	REIAEEITR	0.2580	3067.1	50.00
DRB5_0101	301	TERVRAGVLGEIRSA	RVRAGVLGE	0.2572	3094.1	50.00
DRB5_0101	182	QPHLSATLGLLPEA	LSATLGLLP	0.2570	3099.6	50.00
DRB5_0101	149	AGGREVLRVEVGAPS	LRVEVGAPS	0.2540	3202.7	50.00
DRB5_0101	541	ANVRRFVDDISFVVS	RRFVDDISF	0.2526	3252.5	50.00
DRB5_0101	540	KANVRRFVDDISFVV	RRFVDDISF	0.2519	3276.2	50.00
DRB5_0101	343	LERRKREAQQAVQQT	RKREAQQAV	0.2505	3327.0	50.00
DRB5_0101	345	RRKREAQQAVQQTAL	RKREAQQAV	0.2504	3329.0	50.00
DRB5_0101	181	LGQPHLSATLGLLPE	LSATLGLLP	0.2501	3340.4	50.00
DRB5_0101	519	LGRMAYKEDKQNRLL	MAYKEDKQN	0.2499	3348.8	50.00
DRB5_0101	344	ERRKREAQQAVQQTA	RKREAQQAV	0.2497	3355.9	50.00
DRB5_0101	619	VNDNLAGLEPTLTPR	LAGLEPTLT	0.2494	3366.0	50.00
DRB5_0101	183	QPHLSATLGLLPEAD	PHLSATLGL	0.2494	3366.1	50.00
DRB5_0101	521	RMAYKEDKQNRLLRV	MAYKEDKQN	0.2483	3405.8	50.00
DRB5_0101	219	QAHQICPVGAVVATK	PVGAVVATK	0.2477	3426.7	50.00
DRB5_0101	27	DDPRRVGVIVELIDH	GVIVELIDH	0.2465	3473.6	50.00
DRB5_0101	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.2462	3484.9	50.00
DRB5_0101	118	RLVLAAGPDGTTAAV	LVLAAGPDG	0.2440	3567.5	50.00
DRB5_0101	505	LGLFNPLSVGAGLIL	LFNPLSVGA	0.2434	3592.8	50.00
DRB5_0101	276	DKELNEESNFPAIVK	ELNEESNFP	0.2423	3635.7	50.00
DRB5_0101	184	PHLSATLGLLPEADA	PHLSATLGL	0.2419	3649.5	50.00
DRB5_0101	143	VRRAPHAGGREVLRV	RRAPHAGGR	0.2413	3672.3	50.00

DRB5_0101	452	ELSPHVMGTDGFRGRLK	HVMGTDGFR	0.2413	3673.7	50.00
DRB5_0101	180	GLGQPHLSATLGLLP	LSATLGLLP	0.2403	3715.4	50.00
DRB5_0101	300	ATERVRAGVLGEIRS	RVRAGVLGE	0.2400	3727.4	50.00
DRB5_0101	351	QQAVQQTALWQQVLG	AVQQTALWQ	0.2398	3732.4	50.00
DRB5_0101	586	ESLQATIAAAQVAET	LQATIAAAQ	0.2393	3755.7	50.00
DRB5_0101	382	RFRTVTEDAERQIDS	RTVTEDAER	0.2384	3792.0	50.00
DRB5_0101	425	AYQRSEALADDVARS	YQRSEALAD	0.2356	3907.6	50.00
DRB5_0101	232	TKTDLYPRWREIVNA	DLYPRWREI	0.2345	3952.7	50.00
DRB5_0101	449	LSAELSPHVMGTDGFG	LSAELSPHV	0.2345	3954.7	50.00
DRB5_0101	228	AVVATKTDLYPRWRE	AVVATKTDL	0.2338	3984.9	50.00
DRB5_0101	342	DLERRKREAQQAVQQ	RKREAQQAV	0.2306	4126.4	50.00
DRB5_0101	216	FVRQAHQICPVGAVV	AHQICPVGA	0.2293	4185.0	50.00
DRB5_0101	585	TESLQATIAAAQVAE	LQATIAAAQ	0.2288	4207.0	50.00
DRB5_0101	144	RRAPHAGGREVLRVE	RRAPHAGGR	0.2280	4243.3	50.00
DRB5_0101	537	SEAKANVRRFVDDIS	SEAKANVRR	0.2268	4297.0	50.00
DRB5_0101	612	QLGILSQVNDNLAGL	QLGILSQVN	0.2257	4350.7	50.00
DRB5_0101	137	DDISTDVRRAPHAGG	DDISTDVRR	0.2250	4380.1	50.00
DRB5_0101	218	RQAHQICPVGAVVAT	HQICPVGAV	0.2247	4396.2	50.00
DRB5_0101	346	RKREAQQAVQQTALW	RKREAQQAV	0.2238	4439.8	50.00
DRB5_0101	46	AKLNERGDLVQRLTR	GDLVQRLTR	0.2237	4445.3	50.00
DRB5_0101	350	AQQAVQQTALWQQVL	AVQQTALWQ	0.2231	4471.2	50.00
DRB5_0101	172	FIDTPGVGGLGQPHL	FIDTPGVGG	0.2214	4556.5	50.00
DRB5_0101	347	KREAQQAVQQTALWQ	AVQQTALWQ	0.2212	4567.0	50.00
DRB5_0101	320	AVSLGSELSVNDPN	LGSELSVNV	0.2208	4587.7	50.00
DRB5_0101	506	GLFNPLSVGAGLILG	LFNPLSVGA	0.2203	4610.5	50.00
DRB5_0101	112	SAQPSARLVLAAGPD	ARLVLAAGP	0.2202	4616.0	50.00
DRB5_0101	299	RATERVRAGVLGEIR	RVRAGVLGE	0.2200	4623.8	50.00
DRB5_0101	438	RSFADAGLDSVLSAE	FADAGLDSV	0.2192	4667.1	50.00
DRB5_0101	198	AVLVVSDTSQEFTEP	VLVVSDTSQ	0.2191	4671.6	50.00
DRB5_0101	598	AETERDNRIRELQRQ	NRIRELQRQ	0.2184	4706.1	50.00
DRB5_0101	197	DAVLVVSDTSQEFTE	VLVVSDTSQ	0.2179	4733.2	50.00
DRB5_0101	566	QRLLRDHYREIAEEI	QRLLRDHYR	0.2173	4760.7	50.00
DRB5_0101	338	RLASDLERRKREAQQ	RLASDLERR	0.2158	4843.0	50.00
DRB5_0101	217	VRQAHQICPVGAVVA	AHQICPVGA	0.2143	4921.3	50.00
DRB5_0101	359	LWQQVLGDGFNDLTA	WQQVLGDGF	0.2138	4948.4	50.00
DRB5_0101	539	AKANVRRFVDDISFV	RRFVDDISF	0.2135	4963.2	50.00
DRB5_0101	587	SLQATIAAAQVAETE	LQATIAAAQ	0.2134	4967.7	50.00
DRB5_0101	196	ADAVLVVSDTSQEFTE	VLVVSDTSQ	0.2120	5043.3	50.00
DRB5_0101	383	FRTVTEDAERQIDSC	RTVTEDAER	0.2102	5145.8	50.00
DRB5_0101	349	EAQQAVQQTALWQQV	AVQQTALWQ	0.2099	5157.7	50.00
DRB5_0101	329	VVNDPNLRDRLASDL	VVNDPNLRD	0.2099	5161.7	50.00
DRB5_0101	148	HAGGREVLRVEVGAP	AGGREVLRV	0.2093	5192.5	50.00
DRB5_0101	538	EAKANVRRFVDDISF	RRFVDDISF	0.2093	5192.9	50.00
DRB5_0101	507	LFNPLSVGAGLILGR	LFNPLSVGA	0.2078	5277.2	50.00
DRB5_0101	229	VVATKTDLYPRWREI	VVATKTDLY	0.2076	5287.5	50.00
DRB5_0101	321	VSLGSELSVNDPNL	LGSELSVNV	0.2064	5356.9	50.00
DRB5_0101	451	AELSPHVMGTDGFRGRL	HVMGTDGFR	0.2054	5416.4	50.00
DRB5_0101	370	DLTADVHDHLRTRFR	DHDLRTRFR	0.2027	5580.1	50.00
DRB5_0101	267	LRSHAVTLNDKELNE	LRSHAVTLN	0.2024	5595.7	50.00
DRB5_0101	177	GVGGLGQPHLSATLG	GVGGLGQPH	0.2002	5732.4	50.00
DRB5_0101	437	ARSFADAGLDSVLSA	FADAGLDSV	0.1980	5866.8	50.00
DRB5_0101	185	HLSATLGLLPEADAV	LSATLGLLP	0.1975	5903.8	50.00
DRB5_0101	508	FNPLSVGAGLILGRM	VGAGLILGR	0.1969	5941.7	50.00
DRB5_0101	341	SDLERRKREAQQAVQ	RRKREAQQA	0.1966	5956.4	50.00
DRB5_0101	44	AIAKLNERGDLVQRL	AIAKLNERG	0.1956	6024.3	50.00
DRB5_0101	136	VDDISTDVRRAPHAG	DDISTDVRR	0.1954	6036.4	50.00
DRB5_0101	331	NDPNLRDRLASDLER	DLASDLER	0.1934	6171.8	50.00
DRB5_0101	195	EADAVLVVSDTSQEF	VLVVSDTSQ	0.1926	6219.6	50.00
DRB5_0101	176	PGVGGLGQPHLSATL	GVGGLGQPH	0.1910	6333.4	50.00
DRB5_0101	298	SRATERVRAGVLGEI	RVRAGVLGE	0.1908	6345.1	50.00
DRB5_0101	567	RLLRDHYREIAEEIT	HYREIAEEI	0.1908	6347.4	50.00
DRB5_0101	436	VARSFADAGLDSVLS	FADAGLDSV	0.1882	6524.7	50.00
DRB5_0101	199	VLVVSDTSQEFTEPE	VLVVSDTSQ	0.1870	6610.6	50.00
DRB5_0101	231	ATKTDLYPRWREIVN	KTDLYPRWR	0.1862	6668.0	50.00
DRB5_0101	186	LSATLGLLPEADAVL	LSATLGLLP	0.1853	6733.1	50.00
DRB5_0101	618	QVNDNLAGLEPTLTP	LAGLEPTLT	0.1845	6792.1	50.00
DRB5_0101	509	NPLSVGAGLILGRMA	VGAGLILGR	0.1843	6807.4	50.00
DRB5_0101	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.1841	6822.5	50.00
DRB5_0101	188	ATLGLLPEADAVLVV	GLLPEADAV	0.1840	6828.2	50.00
DRB5_0101	189	TLGLLPEADAVLVVS	GLLPEADAV	0.1839	6834.9	50.00

DRB5_0101	175	TPGVGGLGQPHLSAT	GVGGLGQPH	0.1839	6837.2	50.00
DRB5_0101	407	GNDVENAIATAVGDN	VENAIATAV	0.1833	6882.9	50.00
DRB5_0101	179	GGLGQPHLSATLGLL	PHLSATLGL	0.1832	6888.1	50.00
DRB5_0101	613	LGILSQVNDNLAGLE	LGILSQVND	0.1813	7031.9	50.00
DRB5_0101	145	RPHAGGREVLRVEV	AGGREVLRV	0.1809	7063.5	50.00
DRB5_0101	146	APHAGGREVLRVEVG	AGGREVLRV	0.1804	7103.8	50.00
DRB5_0101	348	REAQQAVQQTALWQQ	AVQQTALWQ	0.1800	7128.3	50.00
DRB5_0101	408	NDVENAIATAVGDNF	VENAIATAV	0.1780	7286.1	50.00
DRB5_0101	426	YQRSEALADDVARSF	YQRSEALAD	0.1778	7302.5	50.00
DRB5_0101	12	RRKRARKWGDVTQFP	RKRARKWGD	0.1764	7412.6	50.00
DRB5_0101	147	PHKAGREVLRVEVGA	AGGREVLRV	0.1752	7514.5	50.00
DRB5_0101	174	DTPGVGGLGQPHLSA	GVGGLGQPH	0.1735	7648.8	50.00
DRB5_0101	178	VGGLGQPHLSATLGL	PHLSATLGL	0.1726	7725.7	50.00
DRB5_0101	190	LGLLPEADAVLVVSD	LLPEADAVL	0.1725	7730.5	50.00
DRB5_0101	589	QATIAAAQVAETERD	IAAAQVAET	0.1722	7755.3	50.00
DRB5_0101	98	GDDEATVVITVVSYS	VVITVVSYS	0.1707	7881.8	50.00
DRB5_0101	588	LQATIAAAQVAETER	IAAAQVAET	0.1696	7976.9	50.00
DRB5_0101	591	TIAAAQVAETERDNR	AQVAETERD	0.1694	7995.8	50.00
DRB5_0101	406	IGNDVENAIATAVGD	VENAIATAV	0.1678	8133.8	50.00
DRB5_0101	187	SATLGLLPEADAVLV	LLPEADAVL	0.1678	8136.6	50.00
DRB5_0101	275	NDKELNEESNFPAIV	LNEESNFPA	0.1672	8187.1	50.00
DRB5_0101	230	VATKTDLYPRWREIV	KTDLYPRWR	0.1669	8217.8	50.00
DRB5_0101	339	LASDLERRKREAQQA	LASDLERRK	0.1635	8523.4	50.00
DRB5_0101	590	ATIAAAQVAETERDN	AQVAETERD	0.1634	8534.0	50.00
DRB5_0101	384	RTVTEDAERQIDSCD	RTVTEDAER	0.1610	8755.7	50.00
DRB5_0101	392	RQIDSCDPTAHWAEI	IDSCDPTAH	0.1610	8758.5	50.00
DRB5_0101	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.1607	8784.0	50.00
DRB5_0101	173	IDTPGVGGLGQPHLS	GVGGLGQPH	0.1601	8844.1	50.00
DRB5_0101	435	DVARSFADAGLDSVL	RSFADAGLD	0.1598	8869.0	50.00
DRB5_0101	135	PVDDISTDVRRAPHA	DDISTDVRR	0.1596	8894.5	50.00
DRB5_0101	274	LNDKELNEESNFPAI	LNEESNFPA	0.1592	8926.3	50.00
DRB5_0101	268	RSHAVTLNDKELNEE	RSHAVTLND	0.1587	8974.9	50.00
DRB5_0101	409	DVENAIATAVGDNFV	VENAIATAV	0.1558	9264.6	50.00
DRB5_0101	405	EIGNDVENAIATAVG	VENAIATAV	0.1548	9364.9	50.00
DRB5_0101	17	RKWGDTVTQPDDPRR	VTQPDDPRR	0.1546	9389.4	50.00
DRB5_0101	391	ERQIDSCDPTAHWAE	IDSCDPTAH	0.1538	9466.4	50.00
DRB5_0101	592	IAAAQVAETERDNRI	AQVAETERD	0.1530	9550.2	50.00
DRB5_0101	194	PEADAVLVVSDTSQE	VLVVSQDTSQ	0.1522	9633.3	50.00
DRB5_0101	594	AAQVAETERDNRIRE	AQVAETERD	0.1484	10037.9	50.00
DRB5_0101	13	RKRARKWGDVTQFPD	RKRARKWGD	0.1481	10072.4	50.00
DRB5_0101	450	SAELSPHVMGTFDFGR	HVMGTFDFGR	0.1471	10178.0	50.00
DRB5_0101	340	ASDLERRKREAQQAV	RRKREAQQA	0.1459	10314.9	50.00
DRB5_0101	595	AQVAETERDNRIREL	AQVAETERD	0.1450	10416.4	50.00
DRB5_0101	410	VENAIATAVGDNFVW	VENAIATAV	0.1445	10470.8	50.00
DRB5_0101	119	LVLAAGPDGTTAAVD	LVLAAGPDG	0.1444	10484.7	50.00
DRB5_0101	593	AAAQVAETERDNRIR	AQVAETERD	0.1435	10589.8	50.00
DRB5_0101	434	DDVARSFADAGLDSV	RSFADAGLD	0.1411	10864.8	50.00
DRB5_0101	273	TLNDKELNEESNFPA	LNEESNFPA	0.1395	11050.8	50.00
DRB5_0101	390	AERQIDSCDPTAHWA	IDSCDPTAH	0.1394	11064.7	50.00
DRB5_0101	404	AEIGNDVENAIATAV	VENAIATAV	0.1392	11086.0	50.00
DRB5_0101	26	PDDPRRVGVIVELID	RRVGVIVEL	0.1387	11147.6	50.00
DRB5_0101	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.1386	11162.9	50.00
DRB5_0101	330	VNDPNLRDRLASDL	LRDRLASDL	0.1381	11218.6	50.00
DRB5_0101	393	QIDSCDPTAHWAEIG	IDSCDPTAH	0.1355	11536.2	50.00
DRB5_0101	597	VAETERDNRIRELQR	DNRIRELQR	0.1347	11636.4	50.00
DRB5_0101	21	DTVTPQDDPRRVGVI	VTQPDDPRR	0.1297	12282.5	50.00
DRB5_0101	191	GLLPEADAVLVVSDT	LLPEADAVL	0.1287	12426.4	50.00
DRB5_0101	19	WGDTVTQPDDPRRVG	VTQPDDPRR	0.1272	12626.8	50.00
DRB5_0101	20	GDTVTQPDDPRRVGV	VTQPDDPRR	0.1268	12675.5	50.00
DRB5_0101	400	TAHWAEIGNDVENAI	AHWAEIGND	0.1266	12714.8	50.00
DRB5_0101	18	KWGDTVTQPDDPRRV	VTQPDDPRR	0.1258	12820.5	50.00
DRB5_0101	193	LPEADAVLVVSDTSQ	VLVVSQDTSQ	0.1254	12870.5	50.00
DRB5_0101	614	GILSQVNDNLAGLEP	GILSQVNDN	0.1242	13045.1	50.00
DRB5_0101	16	ARKWGDVTQPDDPR	RKWGDTVTQ	0.1225	13285.2	50.00
DRB5_0101	399	PTAHWAEIGNDVENA	AHWAEIGND	0.1224	13296.5	50.00
DRB5_0101	22	TVTQPDDPRRVGVIV	VTQPDDPRR	0.1217	13397.7	50.00
DRB5_0101	202	VSDTSQEFTEPEMWF	EFTEPEMWF	0.1216	13411.3	50.00
DRB5_0101	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.1201	13626.9	50.00
DRB5_0101	15	RARKWGDVTQPDDP	RKWGDTVTQ	0.1192	13760.4	50.00
DRB5_0101	134	IPVDDISTDVRRAPH	DDISTDVRR	0.1192	13765.8	50.00

DRB5_0101	23	VTQPDDPRRVGVIVE	VTQPDDPRR	0.1188	13826.4	50.00
DRB5_0101	45	IAKLNERGDLVQRLT	KLNERGDLV	0.1186	13861.6	50.00
DRB5_0101	596	QVAETERDNRIRELQ	AETERDNRI	0.1174	14042.3	50.00
DRB5_0101	401	AHWAEIGNDVENAI	AHWAEIGND	0.1165	14170.5	50.00
DRB5_0101	272	VTLNDKELNEESNFP	LNDKELNEE	0.1153	14359.1	50.00
DRB5_0101	395	DSCDPTAHWAEIGND	AHWAEIGND	0.1146	14469.7	50.00
DRB5_0101	398	DPTAHWAEIGNDVEN	AHWAEIGND	0.1144	14495.5	50.00
DRB5_0101	369	NDLTADVDHDLRTRF	VDHDLRTRF	0.1133	14667.5	50.00
DRB5_0101	14	KRARKWGDVTVTQDD	RKWGDVTVTQ	0.1119	14893.3	50.00
DRB5_0101	365	GDGFNDLTADVHDHL	GFNDLTADV	0.1093	15316.1	50.00
DRB5_0101	192	LLPEADAVLVVSDTS	LLPEADAVL	0.1093	15317.2	50.00
DRB5_0101	366	DGFNDLTADVHDHLR	GFNDLTADV	0.1069	15723.9	50.00
DRB5_0101	269	SHAVTLNDKELNEES	AVTLNDKEL	0.1065	15792.5	50.00
DRB5_0101	389	DAERQIDSCDPTAHW	IDSCDPTAH	0.1063	15821.0	50.00
DRB5_0101	133	DIPVDDISTDVRRAP	DDISTDVRR	0.1062	15841.2	50.00
DRB5_0101	430	EALADDVARSFADAG	EALADDVAR	0.1058	15918.4	50.00
DRB5_0101	396	QCDPTAHWAEIGNDV	AHWAEIGND	0.1049	16066.5	50.00
DRB5_0101	362	VLGDFNDLTADVVD	GFNDLTADV	0.1034	16326.5	50.00
DRB5_0101	364	LGDGFNDLTADVHDH	GFNDLTADV	0.1034	16342.6	50.00
DRB5_0101	367	GFNDLTADVHDHLRT	FNDLTADV	0.1018	16620.1	50.00
DRB5_0101	397	CDPTAHWAEIGNDVE	AHWAEIGND	0.1015	16673.6	50.00
DRB5_0101	432	LADDVARSFADAGLD	RSFADAGLD	0.1011	16736.9	50.00
DRB5_0101	363	VLGDFNDLTADVVDH	GFNDLTADV	0.0992	17085.4	50.00
DRB5_0101	411	ENAIATAVGDNFVWA	NAIATAVGD	0.0987	17195.0	50.00
DRB5_0101	271	AVTLNDKELNEESNF	LNDKELNEE	0.0984	17238.2	50.00
DRB5_0101	97	VGDDEATVVITVVS	ATVVITVVS	0.0968	17535.6	50.00
DRB5_0101	429	SEALADDVARSFADA	EALADDVAR	0.0967	17562.0	50.00
DRB5_0101	270	HAVTLNDKELNEESN	HAVTLNDKE	0.0958	17733.3	50.00
DRB5_0101	433	ADDVARSFADAGLDS	RSFADAGLD	0.0954	17808.3	50.00
DRB5_0101	402	HWAEIGNDVENAIAT	GNDVENAIA	0.0952	17852.5	50.00
DRB5_0101	431	ALADDVARSFADAGL	LADDVARSF	0.0944	17999.7	50.00
DRB5_0101	403	WAEIGNDVENAIATA	GNDVENAIA	0.0941	18061.5	50.00
DRB5_0101	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.0934	18207.5	50.00
DRB5_0101	132	VDIPVDDISTDVRR	DDISTDVRR	0.0929	18292.6	50.00
DRB5_0101	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.0907	18731.7	50.00
DRB5_0101	428	RSEALADDVARSFAD	EALADDVAR	0.0907	18746.0	50.00
DRB5_0101	361	QQVLGDFNDLTADV	GFNDLTADV	0.0905	18773.0	50.00
DRB5_0101	413	AIATAVGDNFVWAYQ	IATAVGDNF	0.0905	18774.3	50.00
DRB5_0101	90	LNLPAARVGDDEATV	LNLPAARVG	0.0893	19016.5	50.00
DRB5_0101	412	NAIATAVGDNFVWAY	NAIATAVGD	0.0885	19182.1	50.00
DRB5_0101	24	TQPDDPRRVGVIVEL	RRVGVIVEL	0.0850	19926.5	50.00
DRB5_0101	388	EDAERQIDSCDPTAH	IDSCDPTAH	0.0819	20618.7	50.00
DRB5_0101	427	QRSEALADDVARSF	EALADDVAR	0.0809	20825.4	50.00
DRB5_0101	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.0803	20968.7	50.00
DRB5_0101	368	FNDLTADVHDHLRTR	DVDHDLRTR	0.0789	21294.8	50.00
DRB5_0101	385	TVTEDAERQIDSCDP	TVTEDAERQ	0.0748	22262.4	50.00
DRB5_0101	615	ILSQVNDNLAGLEPT	VNDNLAGLE	0.0746	22303.1	50.00
DRB5_0101	616	LSQVNDNLAGLEPTL	VNDNLAGLE	0.0742	22392.3	50.00
DRB5_0101	124	GPDGTTAAVDIPVDD	DGTTAAVDI	0.0680	23968.8	50.00
DRB5_0101	123	AGPDGTTAAVDIPVD	DGTTAAVDI	0.0675	24094.7	50.00
DRB5_0101	131	AVDIPVDDISTDVRR	DDISTDVRR	0.0641	24997.6	50.00
DRB5_0101	122	AAGPDGTTAAVDIPV	DGTTAAVDI	0.0608	25895.9	50.00
DRB5_0101	125	PDGTTAAVDIPVDDI	DGTTAAVDI	0.0602	26081.2	50.00
DRB5_0101	386	VTEDAERQIDSCDPT	ERQIDSCDP	0.0597	26212.7	50.00
DRB5_0101	126	DGTTAAVDIPVDDIS	DGTTAAVDI	0.0540	27860.9	50.00
DRB5_0101	96	RVGDDEATVVITVVS	ATVVITVVS	0.0532	28129.0	50.00
DRB5_0101	121	LAAGPDGTTAAVDIP	DGTTAAVDI	0.0526	28306.1	50.00
DRB5_0101	387	TEDAERQIDSCDPTA	AERQIDSCD	0.0458	30463.2	50.00
DRB5_0101	130	AAVDIPVDDISTDVR	VDDISTDVR	0.0442	30982.1	50.00
DRB5_0101	91	NLPAARVGDDEATVV	NLPAARVGD	0.0438	31143.4	50.00
DRB5_0101	127	GTTAAVDIPVDDIST	TTAAVDIPV	0.0375	33340.3	50.00
DRB5_0101	95	ARVGDDEATVVITV	RVGDDEATV	0.0354	34077.4	50.00
DRB5_0101	94	AARVGDDEATVVITV	RVGDDEATV	0.0341	34583.3	50.00
DRB5_0101	92	LPAARVGDDEATVVI	RVGDDEATV	0.0332	34910.0	50.00
DRB5_0101	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.0321	35324.6	50.00
DRB5_0101	129	TAAVDIPVDDISTDV	DIPVDDIST	0.0313	35618.9	50.00
DRB5_0101	93	PAARVGDDEATVVIT	RVGDDEATV	0.0285	36714.1	50.00

Allele: DRB5_0101. Number of high binders 57. Number of weak binders 108. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind	Level	%Random
IAb	422	FVWAYQRSEALADDV	FVWAYQRSE	0.6497	44.3		SB	0.80
IAb	421	NFVWAYQRSEALADD	FVWAYQRSE	0.6474	45.4		SB	0.80
IAb	420	DNFVWAYQRSEALAD	FVWAYQRSE	0.6410	48.7		SB	1.00
IAb	419	GDNFVWAYQRSEALA	FVWAYQRSE	0.6238	58.6		WB	2.00
IAb	108	VVSYSAQPSARLVLA	VVSYSAQPS	0.6163	63.5		WB	2.00
IAb	107	TVVSYSAQPSARLVL	VVSYSAQPS	0.6120	66.5		WB	2.00
IAb	106	ITVVSYSAQPSARLV	VVSYSAQPS	0.6041	72.5		WB	2.00
IAb	105	VITVVSYSAQPSARL	VVSYSAQPS	0.5753	99.0		WB	2.00
IAb	418	VGDNFVWAYQRSEAL	FVWAYQRSE	0.5721	102.5		WB	4.00
IAb	423	VWAYQRSEALADDVA	WAYQRSEAL	0.5706	104.2		WB	4.00
IAb	155	LRVEVGAPSPLLRGG	VEVGAPSP	0.5455	136.7		WB	4.00
IAb	154	RLRVEVGAPSPLLRG	VEVGAPSP	0.5386	147.3		WB	4.00
IAb	156	VLRVEVGAPSPLLRGL	VEVGAPSP	0.5353	152.6		WB	4.00
IAb	109	VSYSAQPSARLVLAA	VSYSAQPSA	0.5318	158.6		WB	4.00
IAb	424	WAYQRSEALADDVAR	WAYQRSEAL	0.5267	167.6		WB	4.00
IAb	251	LQRARVPMPPIIAVSS	QRARVPMP	0.5266	167.6		WB	4.00
IAb	104	VVITVVSYSAQPSAR	VVSYSAQPS	0.5248	171.0		WB	4.00
IAb	586	ESLQATIAAAQVAET	ESLQATIAA	0.5207	178.7		WB	4.00
IAb	585	TESLQATIAAAQVAE	ESLQATIAA	0.5190	182.0		WB	4.00
IAb	584	LTESLQATIAAAQVA	ESLQATIAA	0.5186	182.8		WB	4.00
IAb	250	HLQRARVPMPPIIAVS	QRARVPMP	0.5176	184.9		WB	4.00
IAb	249	AHLQRARVPMPPIIAV	QRARVPMP	0.5134	193.4		WB	4.00
IAb	153	EVL RVEVGAPSPLLR	VEVGAPSP	0.5040	214.2		WB	8.00
IAb	157	VEVGAPSPLLRGGGLA	VEVGAPSP	0.5012	220.7		WB	8.00
IAb	587	SLQATIAAAQVAETE	ATIAAAQVA	0.4973	230.2		WB	8.00
IAb	252	QRARVPMPPIIAVSSL	QRARVPMP	0.4886	253.1		WB	8.00
IAb	583	QLTESLQATIAAAQV	ESLQATIAA	0.4876	255.7		WB	8.00
IAb	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.4821	271.4		WB	8.00
IAb	588	LQATIAAAQVAETER	ATIAAAQVA	0.4803	276.7		WB	8.00
IAb	504	GLGLFNPLSVGAGLI	LGLFNPLSV	0.4663	322.1		WB	8.00
IAb	103	TRVITVVSYSAQPSA	VVSYSAQPS	0.4661	322.8		WB	8.00
IAb	117	ARVLAAGPDGTTAA	RLVLAAGPD	0.4608	341.7		WB	8.00
IAb	503	VGLGLFNPLSVGAGL	LGLFNPLSV	0.4585	350.4		WB	8.00
IAb	417	AVGDNFVWAYQRSEA	FVWAYQRSE	0.4576	353.8		WB	8.00
IAb	589	QATIAAAQVAETERD	ATIAAAQVA	0.4552	362.9		WB	8.00
IAb	582	RSLTESLQATIAAAQ	ESLQATIAA	0.4536	369.5		WB	8.00
IAb	590	ATIAAAQVAETERDN	ATIAAAQVA	0.4511	379.7		WB	8.00
IAb	241	REIVNANAHLQRAR	REIVNANAA	0.4498	384.8		WB	8.00
IAb	621	DNLAGLEPTLTPRAS	LAGLEPTLT	0.4484	390.9		WB	8.00
IAb	248	AAHLQRARVPMPPIIA	QRARVPMP	0.4469	397.1		WB	8.00
IAb	152	REVL RVEVGAPSPLL	VEVGAPSP	0.4464	399.2		WB	8.00
IAb	240	WREIVNANAHLQRA	REIVNANAA	0.4454	403.8		WB	8.00
IAb	505	LGLFNPLSVGAGLIL	LGLFNPLSV	0.4452	404.4		WB	8.00
IAb	502	VVGLGLFNPLSVGAG	LGLFNPLSV	0.4421	418.3		WB	8.00
IAb	110	SYSAQPSARLVLAAG	SYSAQPSAR	0.4419	419.5		WB	8.00
IAb	623	LAGLEPTLTTPRASLG	LAGLEPTLT	0.4359	447.4		WB	8.00
IAb	620	NDNLAGLEPTLTTPRA	LAGLEPTLT	0.4357	448.5		WB	8.00
IAb	239	RWREIVNANAHLQR	REIVNANAA	0.4265	495.3		WB	16.00
IAb	622	NLAGLEPTLTTPRASL	LAGLEPTLT	0.4229	515.2			16.00
IAb	116	SARLVLAAGPDGTTA	RLVLAAGPD	0.4206	528.1			16.00
IAb	238	PRWREIVNANAHLQ	REIVNANAA	0.4095	595.5			16.00
IAb	619	VNDNLAGLEPTLTTPR	LAGLEPTLT	0.4059	619.0			16.00
IAb	581	TRSLTESLQATIAAAA	ESLQATIAA	0.3929	712.8			16.00
IAb	119	LVLAAGPDGTTAAVD	VLAAGPDGT	0.3921	718.6			16.00
IAb	425	AYQRSEALADDVARS	YQRSEALAD	0.3913	725.2			16.00
IAb	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.3896	738.0			16.00
IAb	237	YPRWREIVNANAHL	REIVNANAA	0.3892	741.7			16.00
IAb	242	EIVNANAHLQRARV	EIVNANAHA	0.3868	760.7			16.00
IAb	253	RARVPMPPIIAVSLL	ARVPMPPIA	0.3841	783.5			16.00
IAb	618	QVNDNLAGLEPTLTTP	LAGLEPTLT	0.3799	819.9			16.00
IAb	86	LNSLLNLPAAARVGDD	SLLNLPAAAR	0.3793	825.7			16.00
IAb	151	GREVLRVEVGAPSP	VEVGAPSP	0.3762	853.4			16.00
IAb	501	SVVGLGLFNPLSVGA	LGLFNPLSV	0.3755	859.7			16.00
IAb	85	LLNSLLNLPAAARVGD	SLLNLPAAAR	0.3753	861.6			16.00
IAb	416	TAVGDNFVWAYQRSE	FVWAYQRSE	0.3741	873.5			16.00

IAb	115	PSARLVLAAGPDGTT	RLVLAAGPD	0.3740	874.2	16.00
IAb	87	NSLLNLPAARVGDE	SLLNLPAAR	0.3628	987.0	16.00
IAb	84	QLLNSLLNLPAARVG	SLLNLPAAR	0.3626	988.4	16.00
IAb	102	ATVVITVVSYSQAQS	VVSYSQAQS	0.3612	1003.7	16.00
IAb	83	SQVLLNSLLNLPAARV	SLLNLPAAR	0.3567	1054.2	16.00
IAb	624	AGLEPTLTPRASLGR	LEPTLTTPRA	0.3534	1091.8	16.00
IAb	236	LYPRWREIVNANAHAH	REIVNANAA	0.3463	1179.1	16.00
IAb	247	NAAHLQRARVPMP I I	QRARVPMP I	0.3428	1225.5	32.00
IAb	254	ARVPMP I IAVSSLLR	ARVPMP I IA	0.3424	1230.6	32.00
IAb	217	KRQAHQICPVGAVVA	HQICPVGAV	0.3373	1300.1	32.00
IAb	82	VSQLLNSLLNLPAAR	SQVLLNSLLN	0.3362	1315.8	32.00
IAb	506	GLFNPLSVGAGLILG	FNPLSVGAG	0.3345	1340.4	32.00
IAb	220	AHQICPVGAVVATKT	HQICPVGAV	0.3327	1366.2	32.00
IAb	625	GLEPTLTTPRASLGRA	EPTLTTPRAS	0.3276	1444.8	32.00
IAb	218	RQAHQICPVGAVVAT	HQICPVGAV	0.3259	1471.1	32.00
IAb	591	TIAAAQVAETERDNR	TIAAAQVAE	0.3259	1471.5	32.00
IAb	532	LLRVRSEAKANVRRF	RVRSEAKAN	0.3251	1483.9	32.00
IAb	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.3246	1492.1	32.00
IAb	114	QPSARLVLAAGPDGT	RLVLAAGPD	0.3239	1503.8	32.00
IAb	437	ARSFADAGLDSVLSA	RSFADAGLD	0.3235	1510.3	32.00
IAb	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.3189	1586.6	32.00
IAb	436	VARSFADAGLDSVLS	RSFADAGLD	0.3164	1629.5	32.00
IAb	531	RLLRVRSEAKANVRR	RVRSEAKAN	0.3158	1640.5	32.00
IAb	533	LLRVRSEAKANVRRFV	RVRSEAKAN	0.3157	1643.0	32.00
IAb	121	LAAGPDGTTAAVDIP	AGPDGTTAA	0.3152	1651.3	32.00
IAb	407	GNDVENAIATAVGDN	VENAIATAV	0.3149	1657.1	32.00
IAb	408	NDVENAIATAVGDNF	VENAIATAV	0.3140	1672.8	32.00
IAb	216	FVRQAHQICPVGAVV	HQICPVGAV	0.3138	1677.2	32.00
IAb	221	HQICPVGAVVATKTD	VGAVVATKT	0.3135	1681.3	32.00
IAb	235	DLYPRWREIVNANAHA	REIVNANAA	0.3126	1698.4	32.00
IAb	406	IGNDVENAIATAVGD	VENAIATAV	0.3110	1728.9	32.00
IAb	88	SLLNLPAARVGDEEA	SLLNLPAAR	0.3100	1746.5	32.00
IAb	223	ICPVGAVVATKTDLY	VGAVVATKT	0.3081	1784.1	32.00
IAb	179	GGLGQPHLSATLGLL	GGLGQPHLS	0.3072	1799.9	32.00
IAb	158	EVGAPSPLLRGGLAF	VGAPSPLLR	0.3049	1845.5	32.00
IAb	219	QAHQICPVGAVVATK	HQICPVGAV	0.3049	1846.4	32.00
IAb	178	VGGLGQPHLSATLGL	GGLGQPHLS	0.3025	1895.1	32.00
IAb	215	WFVRQAHQICPVGAV	HQICPVGAV	0.3011	1924.5	32.00
IAb	426	YQRSEALADDVARSF	YQRSEALAD	0.3008	1929.0	32.00
IAb	111	YSAQPSARLVLAAGP	YSAQPSARL	0.3006	1933.2	32.00
IAb	222	QICPVGAVVATKTDL	VGAVVATKT	0.2989	1969.8	32.00
IAb	405	EIGNDVENAIATAVG	VENAIATAV	0.2982	1985.2	32.00
IAb	435	DVARSFADAGLDSVL	RSFADAGLD	0.2975	1999.2	32.00
IAb	246	ANAHLQRARVPMP I	QRARVPMP I	0.2959	2035.8	32.00
IAb	81	GKSQVLLNSLLNLPA	SQVLLNSLLN	0.2935	2088.8	32.00
IAb	530	NRLLRVRSEAKANVR	RVRSEAKAN	0.2932	2094.6	32.00
IAb	580	ITRSLTESLQATIAA	ESLQATIAA	0.2926	2108.3	32.00
IAb	122	AAGPDGTTAAVDIPV	AGPDGTTAA	0.2915	2134.4	32.00
IAb	507	LFNPLSVGAGLILGR	FNPLSVGAG	0.2902	2163.9	32.00
IAb	263	VSSLLRSHAVTLNDK	LLRSHAVTL	0.2898	2172.6	32.00
IAb	183	QPHLSATLGLLPEAD	TLGLLPEAD	0.2883	2208.1	32.00
IAb	264	SSLLRSHAVTLNDKE	LRSHAVTLN	0.2875	2229.5	32.00
IAb	225	PVGAVVATKTDLYPR	GAVVATKTD	0.2871	2238.6	32.00
IAb	243	IVNANAHLQRARVP	VNANAHLQ	0.2870	2241.4	32.00
IAb	181	LGQPHLSATLGLLPE	GQPHLSATL	0.2861	2262.2	32.00
IAb	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.2847	2296.7	32.00
IAb	224	CPVGAVVATKTDLYP	GAVVATKTD	0.2845	2302.9	32.00
IAb	549	DISFVVSQSRDRLK	ISFVVSQSQS	0.2840	2315.0	32.00
IAb	265	SLLRSHAVTLNDKEL	LRSHAVTLN	0.2836	2325.3	32.00
IAb	177	GVGGLGQPHLSATLG	GGLGQPHLS	0.2829	2341.4	32.00
IAb	404	AEIGNDVENAIATAV	VENAIATAV	0.2806	2401.4	32.00
IAb	226	VGAVVATKTDLYPRW	GAVVATKTD	0.2791	2441.7	32.00
IAb	180	GLQPHLSATLGLLP	GQPHLSATL	0.2785	2457.6	32.00
IAb	548	DDISFVVSQSRDRL	ISFVVSQSQS	0.2784	2459.1	32.00
IAb	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.2778	2474.7	32.00
IAb	446	DSVLSAELSPHVMGT	SAELSPHVM	0.2777	2478.4	32.00
IAb	434	DDVARSFADAGLDSV	RSFADAGLD	0.2773	2487.8	32.00
IAb	447	SVLSAELSPHVMGTD	SAELSPHVM	0.2764	2513.8	32.00
IAb	534	RVRSEAKANVRRFVD	RVRSEAKAN	0.2762	2519.3	32.00
IAb	141	TDVRRAPHAGGREVL	RAPHAGGRE	0.2741	2576.5	32.00

IAb	547	VDDISFVVSQSRDR	ISFVVSQSQS	0.2740	2579.1	32.00
IAb	142	DVRRAPHAGGREVLR	APHAGGREV	0.2730	2608.4	32.00
IAb	317	EQLAVSLGSELSVVN	AVSLGSELS	0.2729	2608.8	32.00
IAb	499	LSSVVLGLFNPLSV	LGLFNPLSV	0.2726	2619.4	32.00
IAb	592	IAAAQVAETERDNRI	IAAAQVAET	0.2710	2665.2	32.00
IAb	182	GQPHLSATLGLLPEA	GQPHLSATL	0.2705	2679.3	32.00
IAb	255	RVPMPPIIAVSSLLRS	RVPMPPIAV	0.2698	2697.7	32.00
IAb	176	PGVGGLGQPHLSATL	GGLGQPHLS	0.2697	2701.1	32.00
IAb	163	SPLLRRGGLAFIDTPG	PLLRRGGLAF	0.2693	2712.5	32.00
IAb	164	PLLRRGGLAFIDTPGV	PLLRRGGLAF	0.2693	2714.2	32.00
IAb	262	AVSSLLRSHAVTLND	LLRSHAVTL	0.2679	2755.1	32.00
IAb	309	LGEIRSATEQLAVSL	IRSATEQLA	0.2661	2807.6	32.00
IAb	213	EMWFVRQAHQICPVG	MWFVRQAHQ	0.2660	2811.7	32.00
IAb	167	RGGLAFIDTPGVGGL	LAFIDTPGV	0.2657	2821.8	32.00
IAb	214	MWFVRQAHQICPVGA	MWFVRQAHQ	0.2649	2846.8	32.00
IAb	186	LSATLGLLPEADAVL	SATLGLLPE	0.2641	2871.8	32.00
IAb	550	ISFVVSQSRDRCLKM	ISFVVSQSQS	0.2637	2883.2	32.00
IAb	123	AGPDGTTAAVDIPVD	AGPDGTTAA	0.2635	2890.7	32.00
IAb	316	TEQLAVSLGSELSVV	AVSLGSELS	0.2630	2906.0	32.00
IAb	266	LLRSHAVTLNDKELN	LRSHAVTLN	0.2629	2907.8	32.00
IAb	261	IAVSSLLRSHAVTLN	IAVSSLLRS	0.2628	2912.2	32.00
IAb	257	PMPPIIAVSSLLRSHA	IAVSSLLRS	0.2622	2930.3	32.00
IAb	438	RSFADAGLDSVLSAE	RSFADAGLD	0.2619	2940.8	32.00
IAb	159	VGAPSPLLRGGLAFI	VGAPSPLLR	0.2615	2951.6	32.00
IAb	212	PEMWFVRQAHQICPV	MWFVRQAHQ	0.2594	3021.0	32.00
IAb	508	FNPLSVGAGLILGRM	FNPLSVGAG	0.2593	3022.4	32.00
IAb	310	GEIRSATEQLAVSLG	GEIRSATEQ	0.2590	3034.2	32.00
IAb	258	MPIIAVSSLLRSHAV	IAVSSLLRS	0.2580	3066.6	32.00
IAb	286	PAIVKFLSEQVLSRA	VKFLSEQVL	0.2572	3094.3	32.00
IAb	187	SATLGLLPEADAVLV	SATLGLLPE	0.2570	3099.0	32.00
IAb	546	FVDDISFVVSQSRD	ISFVVSQSQS	0.2569	3102.4	32.00
IAb	184	PHLSATLGLLPEADA	TLGLLPEAD	0.2568	3105.7	32.00
IAb	409	DVENAIATAVGDNFV	VENAIATAV	0.2567	3108.2	32.00
IAb	287	AIVKFLSEQVLSRAT	VKFLSEQVL	0.2554	3154.2	32.00
IAb	448	VLSAELSPHVMGTDF	SAELSPHVM	0.2540	3202.7	32.00
IAb	288	IVKFLSEQVLSRATE	VKFLSEQVL	0.2535	3218.6	32.00
IAb	112	SAQPSARLVLAAGPD	RLVLAAGPD	0.2533	3227.6	32.00
IAb	445	LDSVLSAELSPHVMG	SAELSPHVM	0.2526	3250.9	32.00
IAb	529	QNRLLRVRSEAKANV	RVRSEAKAN	0.2521	3267.7	32.00
IAb	486	MRGSYGGVVMIGMLS	GSYGGVVM	0.2518	3280.2	32.00
IAb	487	RGSYGGVVMIGMLSS	RGSYGGVVM	0.2517	3281.4	32.00
IAb	185	HLSATLGLLPEADAV	SATLGLLPE	0.2515	3290.7	32.00
IAb	143	VRRAPHAGGREVLRV	APHAGGREV	0.2511	3304.5	32.00
IAb	485	GMRGSYGGVVMIGML	GSYGGVVM	0.2510	3308.6	32.00
IAb	318	QLAVSLGSELSVVND	AVSLGSELS	0.2508	3315.3	32.00
IAb	140	STDVRRAPHAGGREV	APHAGGREV	0.2507	3317.4	32.00
IAb	80	QGKSQLLNSLLNLP	SQLLNSLLN	0.2498	3350.5	32.00
IAb	308	VLGEIRSATEQLAVS	GEIRSATEQ	0.2498	3351.3	32.00
IAb	319	LAVSLGSELSVVNDP	AVSLGSELS	0.2482	3410.2	32.00
IAb	70	RVVVIAGLLKQGKSQ	RVVIAGLLK	0.2481	3413.0	32.00
IAb	259	PIIAVSSLLRSHAVT	IAVSSLLRS	0.2480	3417.8	32.00
IAb	449	LSAELSPHVMGTDFG	SAELSPHVM	0.2452	3522.5	32.00
IAb	484	IGMRGSYGGVVMIGM	GSYGGVVM	0.2440	3569.6	50.00
IAb	260	IIAVSSLLRSHAVTL	IAVSSLLRS	0.2435	3587.2	50.00
IAb	166	LRGGLAFIDTPGVGG	LAFIDTPGV	0.2432	3600.1	50.00
IAb	444	GLDSVLSAELSPHVM	SAELSPHVM	0.2427	3618.5	50.00
IAb	175	TPGVGGLGQPHLSAT	GGLGQPHLS	0.2423	3632.7	50.00
IAb	144	RRAPHAGGREVLRVE	RAPHAGGRE	0.2419	3649.1	50.00
IAb	162	PSPLLRRGGLAFIDTP	PLLRRGGLAF	0.2405	3706.6	50.00
IAb	211	EPWFVRQAHQICP	MWFVRQAHQ	0.2387	3778.1	50.00
IAb	36	VELIDHTIAIAKLNE	HTIAIAKLN	0.2369	3852.9	50.00
IAb	244	VNANAHLQRRARVPM	VNANAHLQ	0.2367	3862.7	50.00
IAb	315	ATEQAHLVSLGSELSV	EQLAVSLG	0.2365	3871.3	50.00
IAb	285	FPAIVKFLSEQVLSR	VKFLSEQVL	0.2362	3881.7	50.00
IAb	279	LNEESNFPAIVKFLS	EESNFPAIV	0.2354	3914.8	50.00
IAb	165	LLRGGLAFIDTPGVG	LRGGLAFID	0.2352	3923.5	50.00
IAb	145	RAPHAGGREVLRVEV	RAPHAGGRE	0.2347	3947.8	50.00
IAb	69	QVRVVIAGLLKQGKS	RVVIAGLLK	0.2343	3961.3	50.00
IAb	307	GVLGEIRSATEQLAV	GEIRSATEQ	0.2316	4078.1	50.00
IAb	392	RQIDSCDPTAHWAEI	IDSCDPTAH	0.2316	4079.1	50.00

IAb	113	AQPSARLVLAAGPDG	RLVLAAGPD	0.2315	4084.3	50.00
IAb	410	VENAIATAVGDNFVW	VENAIATAV	0.2315	4086.4	50.00
IAb	391	ERQIDSCDPTAHWAE	IDSCDPTAH	0.2311	4102.1	50.00
IAb	278	EELNEESNFPPIVKFL	EESNFPPIV	0.2310	4106.6	50.00
IAb	443	AGLDSVLSAELSPHV	AGLDSVLSA	0.2308	4115.6	50.00
IAb	71	RVVIAGLLKQGKSQL	RVVIAGLLK	0.2303	4137.8	50.00
IAb	256	VPMPPIAVSSLLRSH	PIIAVSSLL	0.2301	4147.6	50.00
IAb	161	APSPLLRGGLAFIDT	PLLRGGLAF	0.2300	4151.7	50.00
IAb	188	ATLGLLPEADAVLVV	TLGLLPEAD	0.2286	4214.2	50.00
IAb	35	IVELIDHTIAIAKLN	HTIAIAKLN	0.2273	4272.3	50.00
IAb	483	IIGMRGSYGGVVMIG	GSYGGVVM	0.2266	4305.6	50.00
IAb	38	LIDHTIAIAKLNERG	HTIAIAKLN	0.2261	4331.9	50.00
IAb	15	RARKWGDTVTQPDDP	RKWGDTVTQ	0.2260	4336.6	50.00
IAb	14	KRARKWGDTVTQPDD	RKWGDTVTQ	0.2254	4364.4	50.00
IAb	311	EIRSATEQLAVSLGS	IRSATEQLA	0.2253	4365.8	50.00
IAb	320	AVSLGSELSVVNDPN	AVSLGSELS	0.2246	4399.7	50.00
IAb	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.2243	4415.5	50.00
IAb	390	AERQIDSCDPTAHWA	IDSCDPTAH	0.2243	4416.5	50.00
IAb	450	SAELSPHVMGTDFGR	SAELSPHVM	0.2242	4421.5	50.00
IAb	68	PQVRVVIAGLLKQGK	RVVIAGLLK	0.2221	4522.9	50.00
IAb	189	TLGLLPEADAVLVVS	TLGLLPEAD	0.2217	4543.0	50.00
IAb	289	VKFLSEQVLSRATER	VKFLSEQVL	0.2200	4628.1	50.00
IAb	433	ADDVARSFADAGLDS	RSFADAGLD	0.2194	4653.6	50.00
IAb	393	QIDSCDPTAHWAEIG	IDSCDPTAH	0.2194	4654.7	50.00
IAb	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.2181	4719.8	50.00
IAb	13	RKRARKWGDTVTQPD	RKWGDTVTQ	0.2181	4723.3	50.00
IAb	280	NEESNFPPIVKFLSE	EESNFPPIV	0.2170	4779.8	50.00
IAb	16	ARKWGDTVTQPDDPR	RKWGDTVTQ	0.2168	4789.4	50.00
IAb	616	LSQVNDNLAGLEPTL	DNLAGLEPT	0.2167	4791.6	50.00
IAb	205	TSQEFTEPEMWFVRQ	QEFTEPEMW	0.2150	4882.1	50.00
IAb	579	EITRSLTESLQATIA	TESLQATIA	0.2150	4884.7	50.00
IAb	39	IDHTIAIAKLNERGD	HTIAIAKLN	0.2144	4913.7	50.00
IAb	37	ELIDHTIAIAKLNER	HTIAIAKLN	0.2138	4945.7	50.00
IAb	267	LRSHAVTLNDKELNE	LRSHAVTLN	0.2134	4970.4	50.00
IAb	150	GGREVLRLVEVGAPSP	LRVEVGAPS	0.2127	5005.6	50.00
IAb	139	ISTDVRRAPHAGGRE	DVRRAPHAG	0.2124	5024.6	50.00
IAb	545	RFPVDDISFVVSQSR	ISFVVSQSQ	0.2121	5037.4	50.00
IAb	160	GAPSPLLRGGLAFID	PLLRGGLAF	0.2119	5050.1	50.00
IAb	204	DTSQEFTEPEMWFVR	QEFTEPEMW	0.2102	5143.4	50.00
IAb	302	ERVRAGVLGEIRSAT	RVRAGVLGE	0.2098	5164.5	50.00
IAb	488	GSYGGVVMIGMLSSV	GSYGGVVM	0.2094	5187.9	50.00
IAb	463	GRLKALGRMESKPLR	LKALGRMES	0.2090	5212.2	50.00
IAb	301	TERVRAGVLGEIRSA	RVRAGVLGE	0.2084	5245.2	50.00
IAb	312	IRSATEQLAVSLGSE	IRSATEQLA	0.2083	5250.6	50.00
IAb	210	TEPEMWFVRQAHQIC	MWFVRQAHQ	0.2077	5285.1	50.00
IAb	277	KELNEESNFPPIVKF	EESNFPPIV	0.2072	5314.3	50.00
IAb	439	SFADAGLDSVLSAEL	FADAGLDSV	0.2040	5501.5	50.00
IAb	442	DAGLDSVLSAELSPH	AGLDSVLSA	0.2039	5508.6	50.00
IAb	314	SATEQLAVSLGSELS	EQLAVSLGS	0.2038	5511.5	50.00
IAb	281	EESNFPPIVKFLSEQ	EESNFPPIV	0.2033	5542.9	50.00
IAb	306	AGVLGEIRSATEQLA	IRSATEQLA	0.2021	5617.4	50.00
IAb	40	DHTIAIAKLNERGDL	HTIAIAKLN	0.2016	5645.0	50.00
IAb	206	SQEFTEPEMWFVRQA	QEFTEPEMW	0.2004	5721.3	50.00
IAb	462	FGRLKALGRMESKPL	LKALGRMES	0.2003	5726.9	50.00
IAb	41	HTIAIAKLNERGDLV	HTIAIAKLN	0.1992	5790.3	50.00
IAb	72	VVIAGLLKQGKSQLL	VVIAGLLKQ	0.1990	5805.0	50.00
IAb	227	GAVVATKTDLYPRWR	GAVVATKTD	0.1985	5838.4	50.00
IAb	67	DPQVRVVIAGLLKQG	VVIAGLLKQ	0.1977	5888.4	50.00
IAb	245	NANAHLQRARVPMP	ANAHLQRA	0.1976	5892.3	50.00
IAb	440	FADAGLDSVLSAELS	AGLDSVLSA	0.1974	5905.3	50.00
IAb	492	GVMIGMLSSVVGLG	VVMIGMLSS	0.1960	5995.4	50.00
IAb	284	NKPAIVKFLSEQVLS	VKFLSEQVL	0.1957	6013.8	50.00
IAb	79	QFGKSQLLNSLLNLP	SQLLNSLLN	0.1957	6016.6	50.00
IAb	528	KQNRLLRVRSEAKAN	RVRSEAKAN	0.1954	6038.5	50.00
IAb	174	DTPGVGGLGQPHLSA	TPGVGGLGQ	0.1940	6131.1	50.00
IAb	203	SDTSQEFTEPEMWFV	QEFTEPEMW	0.1939	6132.7	50.00
IAb	209	FTEPEMWFVRQAHQI	MWFVRQAHQ	0.1936	6154.0	50.00
IAb	300	ATERVRAGVLGEIRS	RVRAGVLGE	0.1935	6158.7	50.00
IAb	544	RRFVDDISFVVSQSQ	ISFVVSQSQ	0.1933	6174.4	50.00
IAb	207	QEFTEPEMWFVRQAH	QEFTEPEMW	0.1930	6198.1	50.00

IAb	234	TDLYPRWREIVNANA	PRWREIVNA	0.1913	6307.1	50.00
IAb	283	SNFPAIVKFLSEQVL	VKFLSEQVL	0.1910	6329.1	50.00
IAb	432	LADDVARSFADAGLD	RSFADAGLD	0.1909	6338.9	50.00
IAb	303	RVRAGVLGEIRSATE	RVRAGVLGE	0.1907	6351.0	50.00
IAb	491	GGVVMIGMLSSVVGL	VVMIGMLSS	0.1901	6392.0	50.00
IAb	482	MIIGMRGSYGGVMI	GSYGGVMI	0.1878	6556.4	50.00
IAb	465	LKALGRMESKPLRRG	LGRMESKPL	0.1878	6556.6	50.00
IAb	493	VVMIGMLSSVVGLGL	VVMIGMLSS	0.1874	6583.9	50.00
IAb	60	RARQRITDPQVRVVI	QRITDPQVR	0.1865	6647.7	50.00
IAb	490	YGGVVMIGMLSSVVG	VVMIGMLSS	0.1860	6680.1	50.00
IAb	276	LKALNEESNFPPIVK	EESNFPPIVK	0.1856	6712.1	50.00
IAb	173	IDTPGVGGLGQPHLS	GGLGQPHLS	0.1854	6722.8	50.00
IAb	489	SYGGVVMIGMLSSVV	VVMIGMLSS	0.1845	6793.3	50.00
IAb	61	ARQRITDPQVRVVIA	QRITDPQVR	0.1843	6803.7	50.00
IAb	464	RLKALGRMESKPLRR	LGRMESKPL	0.1808	7069.6	50.00
IAb	12	RRKRARKWGDVTVTQ	RKWGDVTVTQ	0.1806	7084.7	50.00
IAb	89	LLNLPAARVGDDEAT	LLNLPAARV	0.1777	7311.5	50.00
IAb	299	RATERVRAGVLGEIR	RVRAGVLGE	0.1768	7380.5	50.00
IAb	396	SCDPTAHWAEIGNDV	AHWAEIGND	0.1761	7435.1	50.00
IAb	380	RTRFRVTVEDAERQI	RTRFRVTVE	0.1758	7465.5	50.00
IAb	379	LRTFRVTVEDAERQ	RTRFRVTVE	0.1751	7522.0	50.00
IAb	62	RQRITDPQVRVVIAG	QRITDPQVR	0.1737	7636.8	50.00
IAb	467	ALGRMESKPLRRGHK	LGRMESKPL	0.1734	7663.1	50.00
IAb	460	TDFGRLKALGRMESK	GRLKALGRM	0.1726	7727.3	50.00
IAb	34	VIVELIDHTIAIAKL	IDHTIAIAK	0.1717	7804.5	50.00
IAb	365	GDGFNDLTADVHDHDL	DGFNDLTAD	0.1711	7851.5	50.00
IAb	59	TRARQRITDPQVRVV	QRITDPQVR	0.1709	7865.4	50.00
IAb	466	KALGRMESKPLRRGH	LGRMESKPL	0.1706	7890.7	50.00
IAb	461	DFGRLKALGRMESKP	GRLKALGRM	0.1697	7967.5	50.00
IAb	395	DSCDPTAHWAEIGND	AHWAEIGND	0.1693	8007.3	50.00
IAb	364	LGDFNDLTADVHDH	DGFNDLTAD	0.1686	8064.2	50.00
IAb	593	AAAQVAETERDNRIR	AAAQVAETE	0.1680	8116.9	50.00
IAb	346	RKREAQQAVQQQTALW	AQQAVQQTA	0.1678	8141.0	50.00
IAb	468	LGRMESKPLRRGHKM	LGRMESKPL	0.1669	8219.8	50.00
IAb	345	RRKREAQQAVQQQTAL	AQQAVQQTA	0.1665	8254.2	50.00
IAb	348	REAQQAVQQQTALWQQ	AQQAVQQTA	0.1664	8257.9	50.00
IAb	459	GTDFGRLKALGRMES	TDFGRLKAL	0.1662	8275.9	50.00
IAb	313	RSATEQLAVSLGSEL	EQLAVSLGS	0.1656	8328.9	50.00
IAb	378	DLRTRFRVTVEDAER	TRFRVTVED	0.1653	8359.5	50.00
IAb	347	KREAQQAVQQQTALWQ	AQQAVQQTA	0.1647	8412.4	50.00
IAb	101	EATVVITVVSYSAP	ITVVSYSAP	0.1641	8469.4	50.00
IAb	63	QRITDPQVRVVIAGL	QRITDPQVR	0.1628	8592.9	50.00
IAb	66	VLDQVRVVIAGLLKQ	VVIAGLLKQ	0.1626	8609.1	50.00
IAb	363	TDFGDFNDLTADVHDH	DGFNDLTAD	0.1621	8655.6	50.00
IAb	441	ADAGLDSVLSAELSP	AGLDSVLSA	0.1617	8688.3	50.00
IAb	208	EFTEPEMWFVRQAHQ	EMWFVRQAH	0.1607	8786.1	50.00
IAb	75	AGLLKQGKSQLLNSL	GLLKQGKSQ	0.1594	8914.8	50.00
IAb	327	LSVNDPNLRDRLAS	SVNDPNLR	0.1584	9005.3	50.00
IAb	33	GVIVELIDHTIAIAK	IDHTIAIAK	0.1575	9093.6	50.00
IAb	171	AFIDTPGVGGLGQPH	AFIDTPGVG	0.1575	9097.3	50.00
IAb	349	EAQQAVQQQTALWQQV	QQAVQQTAL	0.1573	9116.1	50.00
IAb	389	DAERQIDSCDPTAHW	IDSCDPTAH	0.1568	9168.9	50.00
IAb	350	AQQAVQQQTALWQQVL	QQAVQQTAL	0.1568	9170.3	50.00
IAb	609	LQRQLGILSQVNDNL	QRQLGILSQ	0.1560	9246.0	50.00
IAb	298	SRATERVRAGVLGEI	RVRAGVLGE	0.1559	9258.8	50.00
IAb	509	NPLSVGAGLILGRMA	LSVGAGLIL	0.1558	9263.2	50.00
IAb	326	ELSVNDPNLRDRLA	SVNDPNLR	0.1555	9294.1	50.00
IAb	76	GLLKQGKSQLLNSLL	GLLKQGKSQ	0.1555	9300.7	50.00
IAb	578	EEITRSLTESLQATI	RSLTESLQA	0.1547	9381.1	50.00
IAb	610	QRQLGILSQVNDNLA	QRQLGILSQ	0.1545	9398.2	50.00
IAb	397	CDPTAHWAEIGNDVE	AHWAEIGND	0.1532	9530.6	50.00
IAb	11	LRKRARKWGDVTVTQ	RKWGDVTVTQ	0.1527	9585.7	50.00
IAb	275	NKKALNEESNFPPIVK	EESNFPPIVK	0.1520	9657.6	50.00
IAb	282	ESNFPPIVKFLSEQV	SNFPPIVKF	0.1514	9720.9	50.00
IAb	403	WAEIGNDVENAIATA	NDVENAIAT	0.1513	9728.7	50.00
IAb	362	QVLGDGFNDLTADV	GDGFNDLTA	0.1510	9762.8	50.00
IAb	615	ILSQVNDNLAGLEPT	DNLAGLEPT	0.1507	9792.5	50.00
IAb	494	VMIGMLSSVVGLGLF	IGMLSSVVG	0.1506	9802.5	50.00
IAb	377	HDLRTRFRVTVEDAE	RTRFRVTVE	0.1499	9872.2	50.00
IAb	138	DISTDVRRAPHAGGR	DVRRAPHAG	0.1497	9893.4	50.00

IAb	325	SELSVVNDPNLRDRL	SVVNDPNLR	0.1492	9948.2	50.00
IAb	190	LGLLPEADAVLVVSD	LLPEADAVL	0.1491	9956.9	50.00
IAb	510	PLSVGAGLILGRMAY	LSVGAGLIL	0.1491	9962.3	50.00
IAb	431	ALADDVARSFADAGL	VARSFADAG	0.1477	10118.6	50.00
IAb	74	IAGLLKQGKSQLLNS	LKQGKSQLL	0.1474	10142.9	50.00
IAb	399	PTAHWAEIGNDVENA	PTAHWAEIG	0.1472	10164.5	50.00
IAb	458	MGTDFGRLKALGRME	TDFGRLKAL	0.1471	10176.3	50.00
IAb	0	MVPAGLCAYRDLRRK	MVPAGLCAY	0.1459	10316.4	50.00
IAb	411	ENAIATAVGDNFVWA	NAIATAVGD	0.1458	10328.0	50.00
IAb	608	ELQRQLGILSQVNDN	QRQLGILSQ	0.1456	10342.5	50.00
IAb	293	SEQVLSRATERVRAG	QVLSRATER	0.1452	10391.6	50.00
IAb	78	LKQGKSQLLNSLLNL	SQLLNSLLN	0.1451	10400.8	50.00
IAb	290	KFLSEQVLSRATERV	SEQVLSRAT	0.1446	10459.4	50.00
IAb	398	DPTAHWAEIGNDVEN	AHWAEIGND	0.1444	10480.3	50.00
IAb	344	ERRKREAQQAVQQT	AQQAVQQT	0.1436	10570.2	50.00
IAb	294	EQVLSRATERVRAGV	QVLSRATER	0.1429	10655.6	50.00
IAb	233	KTDLYPRWREIVNAN	LYPRWREIV	0.1428	10661.3	50.00
IAb	73	VIAGLLKQGKSQLLN	GLLKQGKSQ	0.1413	10835.5	50.00
IAb	381	TRFRTVTEAERQID	TRFRTVTE	0.1410	10879.2	50.00
IAb	191	GLLPEADAVLVVSDT	LLPEADAVL	0.1408	10898.0	50.00
IAb	146	APHAGGREVLRVVVG	APHAGGREV	0.1405	10939.3	50.00
IAb	495	MIGMLSSVVGLGLFN	IGMLSSVVG	0.1404	10945.7	50.00
IAb	291	ELSEQVLSRATERVR	SEQVLSRAT	0.1400	10989.9	50.00
IAb	388	EDAERQIDSCDPTAH	IDSCDPTAH	0.1397	11030.6	50.00
IAb	58	LTRARQRITDPQVRV	QRITDPQVR	0.1394	11064.9	50.00
IAb	292	LSEQVLSRATERVRA	QVLSRATER	0.1391	11103.5	50.00
IAb	606	IRELQRQLGILSQVN	QRQLGILSQ	0.1387	11144.2	50.00
IAb	172	FIDTPGVGGLGQPHL	TPGVGGLGQ	0.1384	11185.5	50.00
IAb	192	LLPEADAVLVVSDTS	LLPEADAVL	0.1376	11283.9	50.00
IAb	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.1373	11317.6	50.00
IAb	124	PDGTTAAVDIPVDD	PDGTTAAVD	0.1365	11412.9	50.00
IAb	607	RELQRQLGILSQVND	QRQLGILSQ	0.1360	11482.5	50.00
IAb	496	IGMLSSVVGLGLFNP	IGMLSSVVG	0.1359	11486.6	50.00
IAb	354	VQQTALWQQVLGDGF	VQQTALWQQ	0.1356	11524.5	50.00
IAb	125	PDGTTAAVDIPVDDI	PDGTTAAVD	0.1355	11546.5	50.00
IAb	324	GSELSVVNDPNLRDR	SVVNDPNLR	0.1351	11597.0	50.00
IAb	511	LSVGAGLILGRMAYK	LSVGAGLIL	0.1336	11775.4	50.00
IAb	351	QQAVQQTALWQQVLG	QQAVQQTAL	0.1335	11789.4	50.00
IAb	17	RKWGDTVTQPDDPRR	RKWGDTVTQ	0.1330	11856.3	50.00
IAb	412	NAIATAVGDNFVWAY	NAIATAVGD	0.1325	11923.6	50.00
IAb	356	QTALWQQVLGDGFND	ALWQQVLGD	0.1325	11925.7	50.00
IAb	202	VSDTSQEFTEPEMWF	QEFTEPEMW	0.1317	12020.3	50.00
IAb	149	AGSSVLRVEVGAPS	LRVEVGAPS	0.1313	12083.4	50.00
IAb	498	MLSSVVGLGLFNPLS	SVVGLGLFN	0.1312	12085.3	50.00
IAb	577	AEEITRSLTESLQAT	SLTESLQAT	0.1305	12185.2	50.00
IAb	295	QVLSRATERVRAGVL	QVLSRATER	0.1295	12319.1	50.00
IAb	481	KMIIGMRGSYGGVVM	RGSYGGVVM	0.1293	12345.7	50.00
IAb	457	VMGTDFGRLKALGRM	TDFGRLKAL	0.1293	12348.1	50.00
IAb	304	VRAGVLGEIRSATEQ	GVLGEIRSA	0.1291	12363.7	50.00
IAb	90	LNLPAARVGDDEATV	LNLPAARVG	0.1285	12452.6	50.00
IAb	328	SVVNDPNLRDRLASD	SVVNDPNLR	0.1285	12453.8	50.00
IAb	357	TALWQQVLGDGFNDL	ALWQQVLGD	0.1278	12549.2	50.00
IAb	355	QQTALWQQVLGDGFN	ALWQQVLGD	0.1277	12552.7	50.00
IAb	323	LGSELSVVNDPNLRD	SVVNDPNLR	0.1271	12642.5	50.00
IAb	611	RQLGILSQVNDNLAG	QLGILSQVN	0.1269	12665.8	50.00
IAb	137	DDISTDVRRAPHAGG	DVRRAPHAG	0.1262	12761.3	50.00
IAb	127	GTTAAVDIPVDDIST	TTAAVDIPV	0.1261	12780.9	50.00
IAb	361	QQVLGDGFNDLTADV	DGFNDLTAD	0.1256	12847.2	50.00
IAb	305	RAGVLGEIRSATEQL	GEIRSATEQ	0.1254	12875.3	50.00
IAb	232	TKTDLYPRWREIVNA	LYPRWREIV	0.1245	12994.4	50.00
IAb	543	VRRFVDDISFVVSQKQ	RRFVDDISF	0.1244	13009.7	50.00
IAb	612	QLGILSQVNDNLAGL	QLGILSQVN	0.1244	13011.7	50.00
IAb	451	AELSPHVMGTDFGRL	LSPHVMGTD	0.1240	13075.2	50.00
IAb	77	LLKQGKSQLLNSLLN	SQLLNSLLN	0.1240	13076.8	50.00
IAb	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.1231	13195.6	50.00
IAb	57	RLTRARQRITDPQVR	LTRARQRIT	0.1224	13298.0	50.00
IAb	126	DGTAAVDIPVDDIS	TTAAVDIPV	0.1221	13348.6	50.00
IAb	366	DGFNDLTADVHDHLR	DGFNDLTAD	0.1220	13363.4	50.00
IAb	27	DDPRRVGVIVELIDH	PRRVGVIVE	0.1195	13715.8	50.00
IAb	28	DPRRVGVIVELIDHT	PRRVGVIVE	0.1187	13846.6	50.00

IAb	297	LSRATERVRAGVLGE	RVRAGVLGE	0.1172	14075.9	50.00
IAb	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.1170	14105.6	50.00
IAb	29	PRRVGVIVELIDHTI	PRRVGVIVE	0.1169	14116.8	50.00
IAb	100	DEATGVVITVVSYSAQ	ITVVSYSAQ	0.1167	14143.4	50.00
IAb	65	ITDPQVRVVIAGLLK	RVVIAGLLK	0.1167	14149.2	50.00
IAb	322	SLGSELSVVNDPNLR	SVVNDPNLR	0.1166	14160.2	50.00
IAb	24	TQPDDPRRVGVIVEL	TQPDDPRRV	0.1164	14192.6	50.00
IAb	551	SFVVSKQSRDRLKMI	FVVSKQSRD	0.1154	14341.6	50.00
IAb	26	PDDPRRVGVIVELID	PRRVGVIVE	0.1152	14374.8	50.00
IAb	352	LAVQQTALWQQVLGD	ALWQQVLGD	0.1151	14387.7	50.00
IAb	519	QGRMAYKEDKQNRL	MAYKEDKQN	0.1147	14450.9	50.00
IAb	32	VGIVIVELIDHTIAIA	ELIDHTIAI	0.1140	14557.6	50.00
IAb	400	TAHWAEIGNDVENAI	AHWAEIGND	0.1140	14566.9	50.00
IAb	353	AVQQTALWQQVLGDG	ALWQQVLGD	0.1136	14623.9	50.00
IAb	201	VVSDTSQEFTEPEMW	QEFTEPEMW	0.1135	14637.2	50.00
IAb	197	DAVLVSDTSQEFTE	AVLVVSDTS	0.1130	14721.1	50.00
IAb	56	QLRTRARQRITDPQV	LTRARQRIT	0.1121	14874.0	50.00
IAb	321	VSLGSELSVVNDPNL	VSLGSELSV	0.1120	14888.1	50.00
IAb	358	ALWQQVLGDGFNDLT	ALWQQVLGD	0.1119	14898.0	50.00
IAb	605	RIRELQRQLGILSQV	QRQLGILSQ	0.1114	14976.0	50.00
IAb	576	IAEEITRSLTESLQA	RSLTESLQA	0.1106	15102.1	50.00
IAb	402	HWAEIGNDVENAIAT	NDVENAIAT	0.1098	15238.4	50.00
IAb	23	VTQPDDPRRVGVIVE	TQPDDPRRV	0.1093	15322.5	50.00
IAb	25	QFDDPRRVGVIVELI	PRRVGVIVE	0.1087	15427.3	50.00
IAb	497	GMLSSVVGGLGFNPL	GMLSSVVG	0.1079	15563.5	50.00
IAb	54	LVQRLTRARQRITDP	LVQRLTRAR	0.1077	15594.0	50.00
IAb	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.1077	15597.0	50.00
IAb	430	EALADDVARSFADAG	VARSFADAG	0.1071	15691.1	50.00
IAb	401	AHWAEIGNDVENAIA	AHWAEIGND	0.1071	15692.5	50.00
IAb	515	AGLILGRMAYKEDKQ	AGLILGRMA	0.1062	15850.0	50.00
IAb	570	RDHYREIAEEITRSL	YREIAEEIT	0.1058	15913.6	50.00
IAb	196	ADAVLVVSDTSQEFT	VLVVSDTSQ	0.1058	15922.9	50.00
IAb	343	LERRKREAQQAVQQT	RKREAQQAV	0.1057	15928.4	50.00
IAb	129	TAAVDIPVDDISTDV	AAVDIPVDD	0.1055	15975.0	50.00
IAb	55	VQRLTRARQRITDPQ	LTRARQRIT	0.1051	16042.2	50.00
IAb	452	ELSPHVMGTDGFRLLK	LSPHVMGTD	0.1051	16042.2	50.00
IAb	480	HKMIIGMRGSYGGVV	KMIIGMRGS	0.1049	16079.0	50.00
IAb	199	VLVVSDTSQEFTEPE	VLVVSDTSQ	0.1046	16128.5	50.00
IAb	518	ILGRMAYKEDKQNRL	MAYKEDKQN	0.1039	16250.8	50.00
IAb	231	ATKTDLYPRWREIVN	DLYPRWREI	0.1031	16393.6	50.00
IAb	10	DLRRKRARKWGDVT	ARKWGDVT	0.1029	16419.0	50.00
IAb	477	RRGHKMIIGMRGSYG	KMIIGMRGS	0.1029	16429.5	50.00
IAb	613	LGILSQVNDNLAGLE	LSQVNDNLA	0.1025	16485.6	50.00
IAb	478	RRGHKMIIGMRGSYG	KMIIGMRGS	0.1022	16551.4	50.00
IAb	521	RMAYKEDKQNRLLRV	MAYKEDKQN	0.1019	16599.1	50.00
IAb	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.1014	16687.5	50.00
IAb	572	HYREIAEEITRSLTE	YREIAEEIT	0.1011	16738.3	50.00
IAb	376	DHDLRTRFRFTVTEA	TRFRFTVTE	0.1010	16771.1	50.00
IAb	456	HVMGTDGFRLLKALGR	TDFGRLKAL	0.1009	16782.6	50.00
IAb	512	SVGAGLILGRMAYKE	AGLILGRMA	0.1006	16834.7	50.00
IAb	516	GLILGRMAYKEDKQN	MAYKEDKQN	0.1003	16894.4	50.00
IAb	542	NVRRFVDDISFVVSK	RRFVDDISF	0.1001	16935.8	50.00
IAb	571	DHYREIAEEITRSLT	YREIAEEIT	0.0999	16961.5	50.00
IAb	53	DLVQRLTRARQRITD	LVQRLTRAR	0.0998	16981.6	50.00
IAb	569	LRDHYREIAEEITRS	YREIAEEIT	0.0997	16998.9	50.00
IAb	469	GRMESKPLRRGHKMI	RMESKPLRR	0.0995	17032.4	50.00
IAb	414	IATAVGDNFVWAYQR	ATAVGDNFV	0.0993	17072.8	50.00
IAb	520	GRMAYKEDKQNRLLR	MAYKEDKQN	0.0988	17159.9	50.00
IAb	535	VRSEAKANVRRFVDD	VRSEAKANV	0.0982	17281.6	50.00
IAb	475	PLRRGHKMIIGMRGS	RGHKMIIGM	0.0976	17388.3	50.00
IAb	474	KPLRRGHKMIIGMRG	KPLRRGHKM	0.0976	17400.3	50.00
IAb	360	WQVLGDGFNDLTAD	QVLGDGFND	0.0972	17462.0	50.00
IAb	479	GHKMIIGMRGSYGGV	KMIIGMRGS	0.0964	17623.7	50.00
IAb	22	TVTQPDDPRRVGVIV	TQPDDPRRV	0.0956	17781.3	50.00
IAb	268	RSHAVTLNDKELNEE	RSHAVTLND	0.0954	17816.2	50.00
IAb	514	GAGLILGRMAYKEDK	AGLILGRMA	0.0954	17819.3	50.00
IAb	429	SEALADDVARSFADA	SEALADDVA	0.0953	17830.7	50.00
IAb	541	ANVRRFVDDISFVVS	RRFVDDISF	0.0952	17844.4	50.00
IAb	195	EADAVLVVSDTSQEF	AVLVVSDTS	0.0944	18002.6	50.00
IAb	614	GILSQVNDNLAGLEP	LSQVNDNLA	0.0944	18012.6	50.00

IAb	527	DKQNRLLRVRSEAKA	LRVRSEAKA	0.0943	18020.7	50.00
IAb	382	RFRTVTEDAERQIDS	FRTVTEDAE	0.0940	18079.1	50.00
IAb	136	VDDISTDVRRAPHAG	DVRRAPHAG	0.0935	18182.5	50.00
IAb	18	KWGTAVTQPDPPRRV	TQPDPPRRV	0.0933	18212.0	50.00
IAb	413	AIATAVGDNFVWAYQ	AIATAVGDN	0.0932	18242.0	50.00
IAb	522	MAYKEDKQNRLLRVR	MAYKEDKQN	0.0930	18275.4	50.00
IAb	21	DTVTQPDPPRRVGV	TQPDPPRRV	0.0929	18302.7	50.00
IAb	52	GDLVQRLTRARQRIT	LVQRLTRAR	0.0928	18326.3	50.00
IAb	473	SKPLRRGHKMIIGMR	LRRGHKMI I	0.0924	18401.0	50.00
IAb	296	VLSRATERVRAGVLG	VLSRATERV	0.0921	18449.8	50.00
IAb	428	RSEALADDVARSFAD	EALADDVAR	0.0921	18465.4	50.00
IAb	476	LRRGHKMIIGMRGSY	RGHKMI IGM	0.0917	18542.3	50.00
IAb	19	WGDTVTQPDPPRRVG	TQPDPPRRV	0.0917	18545.5	50.00
IAb	575	EIAEEITRSLTESLQ	EEITRSLTE	0.0915	18583.1	50.00
IAb	513	VGAGLILGRMAYKED	AGLILGRMA	0.0911	18651.2	50.00
IAb	573	YREIAEEITRSLTES	YREIAEEIT	0.0901	18852.2	50.00
IAb	193	LPEADAVLVSDTSQ	LPEADAVLV	0.0900	18882.0	50.00
IAb	517	LILGRMAYKEDKQNR	MAYKEDKQN	0.0897	18936.2	50.00
IAb	470	RMESKPLRRGHKMI I	RMESKPLRR	0.0895	18978.5	50.00
IAb	453	LSPHVMGTDGRLKA	LSPHVMGTD	0.0890	19088.9	50.00
IAb	342	DLERRKREAQQAVQQ	RKREAQQAV	0.0881	19271.5	50.00
IAb	568	LLRDHYREIAEEITR	YREIAEEIT	0.0875	19399.1	50.00
IAb	540	KANVRFRVDDISFV	RRFVDDISF	0.0873	19443.9	50.00
IAb	427	QRSEALADDVARSF	EALADDVAR	0.0872	19472.7	50.00
IAb	552	FVVKQSRDRLKMIQ	FVVKQSRD	0.0859	19738.3	50.00
IAb	472	ESKPLRRGHKMI IGM	LRRGHKMI I	0.0850	19940.3	50.00
IAb	359	LWQQVLGDGFNDLTA	QVLGDGFND	0.0846	20020.3	50.00
IAb	31	RVGVIVELIDHTIAI	ELIDHTIAI	0.0842	20112.8	50.00
IAb	194	PEADAVLVVSDTSQE	AVLVVSDTS	0.0841	20134.5	50.00
IAb	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.0840	20149.1	50.00
IAb	574	REIAEEITRSLTESL	EEITRSLTE	0.0829	20392.6	50.00
IAb	230	VATKTDLYPRWREIV	DLYPRWREI	0.0823	20522.7	50.00
IAb	99	DDEATVVITVVSYS	ATVVITVVS	0.0819	20620.0	50.00
IAb	20	GDTVTQPDPPRRVGV	TQPDPPRRV	0.0817	20652.6	50.00
IAb	51	RGDLVQRLTRARQRI	LVQRLTRAR	0.0813	20739.0	50.00
IAb	604	NRRLRDLRQLGILSQ	QRQLGILSQ	0.0811	20781.3	50.00
IAb	567	RLRDHYREIAEEIT	YREIAEEIT	0.0799	21071.5	50.00
IAb	91	NLPAARVGDDEATVV	ARVGDDEAT	0.0791	21247.6	50.00
IAb	455	PHVMGTDGRLKALG	TDFGRLKAL	0.0790	21280.3	50.00
IAb	333	PNLRDLASDLERRK	RDRLASDLE	0.0775	21623.5	50.00
IAb	98	GDDEATVVITVVSYS	ATVVITVVS	0.0769	21760.8	50.00
IAb	30	RRVGVIVELIDHTIA	RRVGVIVEL	0.0761	21957.1	50.00
IAb	536	RSEAKANVRRFVDDI	RSEAKANVR	0.0759	21989.2	50.00
IAb	274	LNDKELNEESNFPAI	LNEESNFPA	0.0758	22025.0	50.00
IAb	130	AAVDIPVDDISTDVR	AAVDIPVDD	0.0755	22080.3	50.00
IAb	454	SPHVMGTDGRLKAL	TDFGRLKAL	0.0750	22221.2	50.00
IAb	94	AARVGDDEATVVITV	ARVGDDEAT	0.0744	22366.0	50.00
IAb	375	VDHDLRTRFRTVTED	TRFRTVTED	0.0743	22373.5	50.00
IAb	95	ARVGDDEATVVITVV	ARVGDDEAT	0.0742	22408.8	50.00
IAb	332	DPNLRDLASDLERR	RDRLASDLE	0.0721	22910.4	50.00
IAb	50	ERGDLVQRLTRARQR	LVQRLTRAR	0.0721	22913.4	50.00
IAb	539	AKANVRRFVDDISFV	RRFVDDISF	0.0715	23065.4	50.00
IAb	383	FRTVTEDAERQIDSC	FRTVTEDAE	0.0710	23194.3	50.00
IAb	471	MESKPLRRGHKMI IG	LRRGHKMI I	0.0703	23361.5	50.00
IAb	92	LPAARVGDDEATVVI	ARVGDDEAT	0.0699	23458.0	50.00
IAb	367	GFNDLTADVHDHLRT	FNDLTADV	0.0697	23512.4	50.00
IAb	93	PAARVGDDEATVVIT	ARVGDDEAT	0.0695	23578.1	50.00
IAb	341	SDLERRKREAQQAVQ	RKREAQQAV	0.0693	23624.6	50.00
IAb	228	AVVATKTDLYPRWRE	AVVATKTDL	0.0659	24514.6	50.00
IAb	336	RDRLASDLERRKREA	RDRLASDLE	0.0653	24673.8	50.00
IAb	331	NDPNLRDLASDLER	RDRLASDLE	0.0652	24684.2	50.00
IAb	48	NERGDLVQRLTRAR	LVQRLTRAR	0.0650	24755.8	50.00
IAb	537	SEAKANVRRFVDDIS	SEAKANVRR	0.0645	24871.8	50.00
IAb	335	LRDLASDLERRKRE	RDRLASDLE	0.0640	25011.9	50.00
IAb	334	NLRDLASDLERRKR	RDRLASDLE	0.0632	25230.2	50.00
IAb	49	NERGDLVQRLTRARQ	LVQRLTRAR	0.0631	25266.5	50.00
IAb	96	RVGDDEATVVITVVS	ATVVITVVS	0.0626	25389.5	50.00
IAb	43	IAIAKLNERGDLVQR	IAIAKLNER	0.0626	25412.6	50.00
IAb	526	EDKQNRLLRVRSEAK	LLRVRSEAK	0.0615	25689.3	50.00
IAb	135	PVDDISTDVRRAPHA	TDVRRAPHA	0.0612	25782.1	50.00

IAb	538	EAKANVRRFVDDISF	RRFVDDISF	0.0603	26038.9	50.00
IAb	97	VGDDEATVVITVVS	ATVVITVVS	0.0601	26097.3	50.00
IAb	229	VVATKTDLYPRWREI	VVATKTDLY	0.0596	26250.7	50.00
IAb	387	TEDAEERQIDSCDPT	RQIDSCDPT	0.0591	26382.0	50.00
IAb	566	QRLLRDHYREIAEEI	RDHYREIAE	0.0587	26483.0	50.00
IAb	330	VNDPNLRDRLASDLE	PNLRDRLAS	0.0580	26688.4	50.00
IAb	148	HAGGREVLRVEVGAP	VLRVEVGAP	0.0569	27021.3	50.00
IAb	594	AAQVAETERDNRIRE	AQVAETERD	0.0562	27222.3	50.00
IAb	329	VVNDPNLRDRLASDL	PNLRDRLAS	0.0561	27250.9	50.00
IAb	271	AVTLNDKELNEESNF	AVTLNDKEL	0.0561	27262.1	50.00
IAb	603	DNRIRELQRQLGILS	LQRQLGILS	0.0561	27263.6	50.00
IAb	147	PHAGGREVLRVEVGA	PHAGGREVL	0.0558	27333.6	50.00
IAb	374	DVDHDLRTRFRVTTE	RTRFRVTTE	0.0552	27511.9	50.00
IAb	270	HAVTLNDKELNEESN	AVTLNDKEL	0.0541	27853.1	50.00
IAb	340	ASDLERRKREAQQAV	RKREAQQAV	0.0540	27879.3	50.00
IAb	2	PAGLCAYRDLRRKRA	AGLCAYRDL	0.0537	27970.0	50.00
IAb	5	LCAYRDLRRKRARKW	LRRKRARKW	0.0529	28203.9	50.00
IAb	269	SHAVTLNDKELNEES	AVTLNDKEL	0.0527	28255.6	50.00
IAb	3	AGLCAYRDLRRKRAR	YRDLRRKRA	0.0505	28945.0	50.00
IAb	45	IAKLNERGDLVQRLT	LNERGDLVQ	0.0503	29003.9	50.00
IAb	273	TLNDKELNEESNFPA	LNEESNFPA	0.0501	29082.8	50.00
IAb	133	DIPVDDISTDVRRAP	DIPVDDIST	0.0496	29247.2	50.00
IAb	1	VPAGLCAYRDLRRKR	PAGLCAYRD	0.0496	29250.4	50.00
IAb	8	YRDLRRKRARKWGDT	LRRKRARKW	0.0491	29390.9	50.00
IAb	44	AIAKLNERGDLVQRL	LNERGDLVQ	0.0486	29567.3	50.00
IAb	132	VDIPVDDISTDVRRA	DIPVDDIST	0.0478	29810.1	50.00
IAb	7	AYRDLRRKRARKWGD	RDLRRKRAR	0.0474	29939.4	50.00
IAb	9	RDLRRKRARKWGDV	LRRKRARKW	0.0474	29939.8	50.00
IAb	559	RDLKMIQRLLRDHY	RLKMIQRL	0.0467	30164.8	50.00
IAb	134	IPVDDISTDVRRA	IPVDDISTD	0.0454	30581.5	50.00
IAb	272	VTLNDKELNEESNFP	VTLNDKELN	0.0453	30613.6	50.00
IAb	560	DRLKMIQRLLRDHYR	RLKMIQRL	0.0450	30713.8	50.00
IAb	6	CAYRDLRRKRARKWG	RDLRRKRAR	0.0444	30911.1	50.00
IAb	337	DRLASDLERRKREAQ	DRLASDLER	0.0429	31423.7	50.00
IAb	47	KLNERGDLVQRLTRA	LNERGDLVQ	0.0416	31866.7	50.00
IAb	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.0416	31880.9	50.00
IAb	558	SRDLRDLKMIQRLRDH	DRLKMIQRL	0.0415	31918.5	50.00
IAb	561	RLKMIQRLLRDHYRE	RLKMIQRL	0.0395	32606.2	50.00
IAb	595	AQVAETERDNRIREL	AQVAETERD	0.0394	32646.4	50.00
IAb	368	FNDLTADVVDHDLRTR	FNDLTADV	0.0383	33028.3	50.00
IAb	386	VTEDAERQIDSCDPT	RQIDSCDPT	0.0381	33107.4	50.00
IAb	565	IQRLLRDHYREIAEE	RDHYREIAE	0.0381	33122.4	50.00
IAb	557	QSRDRLKMIQRLLRD	DRLKMIQRL	0.0379	33186.3	50.00
IAb	556	KQRDRDLKMIQRLLR	DRLKMIQRL	0.0377	33251.0	50.00
IAb	46	AKLNERGDLVQRLTR	LNERGDLVQ	0.0362	33786.7	50.00
IAb	555	SKQSRDRLKMIQRL	DRLKMIQRL	0.0356	34034.3	50.00
IAb	525	KEDKQNRLLRVRSEA	NRLLRVRSE	0.0345	34420.2	50.00
IAb	131	AVDIPVDDISTDVR	DIPVDDIST	0.0340	34607.6	50.00
IAb	602	RDNRIRELQRQLGI	RELQRQLGI	0.0338	34669.9	50.00
IAb	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.0320	35356.3	50.00
IAb	564	MQRLLRDHYREIAE	RDHYREIAE	0.0320	35379.2	50.00
IAb	339	LASDLERRKREAQQA	RRKREAQQA	0.0318	35440.9	50.00
IAb	524	YKEDKQNRLLRVRSE	NRLLRVRSE	0.0310	35739.0	50.00
IAb	523	AYKEDKQNRLLRVRS	YKEDKQNRL	0.0307	35854.0	50.00
IAb	385	TVTEDAERQIDSCDP	TVTEDAERQ	0.0306	35906.8	50.00
IAb	553	VVSKQSRDRLKMIQR	VVSKQSRDR	0.0296	36289.2	50.00
IAb	384	RTVTEDAERQIDSCD	TVTEDAERQ	0.0283	36816.4	50.00
IAb	601	ERDNRIRELQRQLGI	RELQRQLGI	0.0267	37444.3	50.00
IAb	554	VSKQSRDRLKMIQRL	DRLKMIQRL	0.0267	37449.1	50.00
IAb	563	KMIQRLLRDHYREIA	KMIQRLLRD	0.0234	38815.5	50.00
IAb	373	ADVVDHDLRTRFRVT	LRTRFRVT	0.0219	39444.6	50.00
IAb	338	RLASDLERRKREAQQ	LERRKREAQ	0.0203	40118.6	50.00
IAb	600	TERDNRIRELQRQLG	RIRELQRQL	0.0203	40124.7	50.00
IAb	596	QVAETERDNRIRELQ	QVAETERDN	0.0194	40537.1	50.00
IAb	369	NDLTADVVDHDLRTRF	NDLTADVVDH	0.0161	42026.1	50.00
IAb	598	AETERDNRIRELQRQ	AETERDNR	0.0153	42349.7	50.00
IAb	599	ETERDNRIRELQRQL	RIRELQRQL	0.0152	42429.0	50.00
IAb	372	TADVVDHDLRTRFRV	ADVVDHDLRT	0.0139	43000.7	50.00
IAb	597	VAETERDNRIRELQR	AETERDNR	0.0139	43017.5	50.00
IAb	370	DLTADVVDHDLRTRFR	DLTADVVDH	0.0139	43020.7	50.00

IAb 371 LTADVHDHLRTRFRFT ADVVDHLRRT 0.0138 43072.0 50.00

Allele: IAb. Number of high binders 3. Number of weak binders 45. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
IAd	218	RQAHQICPVGAVVAT	AHQICPVGA	0.5333	156.0	WB	0.30
IAd	217	VRQAHQICPVGAVVA	AHQICPVGA	0.5139	192.4	WB	0.40
IAd	220	AHQICPVGAVVATKT	AHQICPVGA	0.4984	227.5	WB	0.80
IAd	219	QAHQICPVGAVVATK	AHQICPVGA	0.4958	234.1	WB	0.80
IAd	586	ESLQATIAAAQVAET	QATIAAAQV	0.4800	277.7	WB	0.80
IAd	215	WFVRQAHQICPVGAV	AHQICPVGA	0.4773	285.8	WB	0.80
IAd	216	FVRQAHQICPVGAVV	AHQICPVGA	0.4765	288.4	WB	0.80
IAd	605	IRELQRQLGILSQV	LQRQLGILS	0.4720	302.7	WB	0.80
IAd	606	IRELQRQLGILSQVN	LQRQLGILS	0.4717	303.8	WB	0.80
IAd	607	RELQRQLGILSQVND	LQRQLGILS	0.4688	313.5	WB	0.80
IAd	252	QRARVPMPIIAVSSL	RARVPMPII	0.4653	325.3	WB	0.80
IAd	608	ELQRQLGILSQVNDN	QRQLGILSQ	0.4603	343.5	WB	1.00
IAd	584	LTESLQATIAAAQVA	QATIAAAQV	0.4564	358.4	WB	1.00
IAd	585	TESLQATIAAAQVAE	QATIAAAQV	0.4384	435.5	WB	2.00
IAd	587	SLQATIAAAQVAETE	QATIAAAQV	0.4382	436.4	WB	2.00
IAd	583	SLTESLQATIAAAQV	ESLQATIAA	0.4335	459.2	WB	2.00
IAd	463	GRLKALGRMESKPLR	LKALGRMES	0.4321	466.3	WB	2.00
IAd	462	FGRLLKALGRMESKPL	LKALGRMES	0.4287	483.6	WB	2.00
IAd	312	IRSATEQLAVSLGSE	IRSATEQLA	0.4282	486.3	WB	2.00
IAd	348	REAQQAVQQTALWQQ	EAQQAVQQT	0.4243	506.9		2.00
IAd	253	RARVPMPIIAVSSLL	RARVPMPII	0.4228	515.5		2.00
IAd	251	LQRARVPMPIIAVSS	RARVPMPII	0.4188	538.3		2.00
IAd	609	LQRQLGILSQVNDNL	LQRQLGILS	0.4169	549.7		2.00
IAd	221	HQICPVGAVVATKTD	VGAVVATKT	0.4136	569.4		2.00
IAd	345	RRKREAQQAVQQTAL	AQQAVQQTA	0.4134	570.9		2.00
IAd	254	ARVPMPIIAVSSLLR	MPIIAVSSL	0.4106	588.2		2.00
IAd	344	MRFKREAQQAVQQTA	AQQAVQQTA	0.4059	618.6		2.00
IAd	214	EWVVRQAHQICPVGA	AHQICPVGA	0.4051	624.3		2.00
IAd	255	RVPMPPIIAVSSLLRS	MPIIAVSSL	0.4039	632.5		2.00
IAd	311	EIRSATEQLAVSLGS	IRSATEQLA	0.4025	642.4		4.00
IAd	460	TDFGRLKALGRMESK	LKALGRMES	0.3992	665.7		4.00
IAd	461	DFGRLKALGRMESKP	LKALGRMES	0.3960	688.6		4.00
IAd	349	EAQQAVQQTALWQQV	AQQAVQQTA	0.3933	709.2		4.00
IAd	604	NRIRELQRQLGILSQ	QRQLGILSQ	0.3917	721.5		4.00
IAd	346	RRKREAQQAVQQTALW	AQQAVQQTA	0.3914	724.2		4.00
IAd	313	RSATEQLAVSLGSEL	ATEQLAVSL	0.3876	754.4		4.00
IAd	465	LKALGRMESKPLRRG	LKALGRMES	0.3874	756.4		4.00
IAd	347	KREAQQAVQQTALWQ	AQQAVQQTA	0.3834	790.0		4.00
IAd	250	HLQRARVPMPIIAVS	RARVPMPII	0.3825	797.3		4.00
IAd	249	AHLQRARVPMPIIAV	RARVPMPII	0.3790	828.3		4.00
IAd	111	YSAQPSARLVLAAGP	PSARLVLAA	0.3785	832.2		4.00
IAd	257	MPPIIAVSSLLRSHA	MPIIAVSSL	0.3755	860.0		4.00
IAd	464	RLKALGRMESKPLRR	LKALGRMES	0.3747	867.5		4.00
IAd	238	PRWREIVNANAHLQ	WREIVNANA	0.3692	921.1		4.00
IAd	582	RSLTESLQATIAAAQ	SLQATIAAA	0.3677	935.9		4.00
IAd	112	SAQPSARLVLAAGPD	PSARLVLAA	0.3672	941.3		4.00
IAd	256	VPMPPIIAVSSLLRSH	MPIIAVSSL	0.3646	967.4		4.00
IAd	248	AAHLQRARVPMPIIA	RARVPMPII	0.3620	995.4		4.00
IAd	99	DDEATVVITVVSYSYA	VITVVSYSYA	0.3615	1000.7		4.00
IAd	310	GEIRSATEQLAVSLG	IRSATEQLA	0.3610	1006.1		4.00
IAd	237	YPRWREIVNANAHL	WREIVNANA	0.3594	1024.1		4.00
IAd	113	AQPSARLVLAAGPDG	PSARLVLAA	0.3584	1034.5		4.00
IAd	114	QPSARLVLAAGPDGT	PSARLVLAA	0.3566	1054.9		4.00
IAd	258	MPIIAVSSLLRSHAV	MPIIAVSSL	0.3562	1059.2		4.00
IAd	110	SYSQAQPSARLVLAAG	PSARLVLAA	0.3527	1101.1		8.00
IAd	477	RRGHKMIIGMRGSYG	GHKMIIGMR	0.3511	1120.1		8.00
IAd	588	LQATIAAAQVAETER	QATIAAAQV	0.3506	1125.7		8.00
IAd	240	WREIVNANAHLQRA	WREIVNANA	0.3497	1136.8		8.00
IAd	100	DEATVVITVVSYSYAQ	VITVVSYSYA	0.3474	1166.0		8.00
IAd	476	LRRGHKMIIGMRGSY	GHKMIIGMR	0.3469	1171.9		8.00
IAd	581	TRSLTESLQATIAAA	SLQATIAAA	0.3467	1174.6		8.00

IAd	84	QLLNSLLNLPAARVG	LNSLLNLPA	0.3432	1219.2	8.00
IAd	343	LERRKREAQQAVQQT	EAQQAVQQT	0.3432	1220.0	8.00
IAd	589	QATIAAAQVAETERD	QATIAAAQV	0.3432	1220.4	8.00
IAd	83	SLLNSLLNLPAARV	LNSLLNLPA	0.3431	1221.3	8.00
IAd	86	LSLLNLPAARVGDD	LNSLLNLPA	0.3427	1225.8	8.00
IAd	66	TDPQVRVVIAGLLKQ	PQVRVVIAG	0.3411	1247.8	8.00
IAd	85	LLNSLLNLPAARVGD	LNSLLNLPA	0.3392	1274.3	8.00
IAd	475	PLRRGHKMIIGMRGS	HKMIIGMRG	0.3380	1290.8	8.00
IAd	350	AQQAVQQTALWQQVL	AQQAVQQT	0.3373	1300.6	8.00
IAd	236	LYPRWREIVNANA	WREIVNANA	0.3371	1302.8	8.00
IAd	459	GTDFGRLLKALGRMES	LKALGRMES	0.3361	1317.2	8.00
IAd	301	TERVRAGVLGEIRSA	AGVLGEIRS	0.3358	1321.8	8.00
IAd	67	DPQVRVVIAGLLKQG	QVRVVIAGL	0.3357	1323.1	8.00
IAd	235	DLYPRWREIVNANA	WREIVNANA	0.3344	1341.4	8.00
IAd	478	RGHKMIIGMRGSYGG	GHKMIIGMR	0.3340	1347.5	8.00
IAd	314	SATEQLAVSLGSELS	ATEQLAVSL	0.3279	1438.6	8.00
IAd	222	QICPVGAVVATKTDL	VGAVVATKT	0.3256	1475.2	8.00
IAd	115	PSARLVLAAGPDGTT	PSARLVLA	0.3232	1514.9	8.00
IAd	300	ATERVRAGVLGEIRS	AGVLGEIRS	0.3224	1528.2	8.00
IAd	68	PQVRVVIAGLLKQK	PQVRVVIAG	0.3222	1530.2	8.00
IAd	490	YGGVVMIGMLSSVVG	VVMIGMLSS	0.3218	1537.5	8.00
IAd	81	GKSQLLNSLLNLPA	LNSLLNLPA	0.3212	1547.8	8.00
IAd	247	NAAHLQRARVPMPII	QRARVPMPI	0.3203	1562.1	8.00
IAd	299	RATERVRAGVLGEIR	VRAGVLGEI	0.3202	1565.0	8.00
IAd	292	LSEQVLSRATERVRA	LSEQVLSRA	0.3179	1604.5	8.00
IAd	82	KSQLLNSLLNLPAAR	LNSLLNLPA	0.3173	1613.6	8.00
IAd	479	GHKMIIGMRGSYGGV	GHKMIIGMR	0.3141	1671.6	8.00
IAd	491	GGVVMIGMLSSVVG	VVMIGMLSS	0.3131	1690.1	8.00
IAd	489	SYGGVVMIGMLSSV	VVMIGMLSS	0.3119	1711.1	8.00
IAd	101	EATVVITVVSYSAP	EATVVITV	0.3105	1737.1	8.00
IAd	315	ATEQLAVSLGSELSV	ATEQLAVSL	0.3104	1740.0	8.00
IAd	65	ITDPQVRVVIAGLLK	PQVRVVIAG	0.3073	1799.4	8.00
IAd	309	LGEIRSATEQLAVSL	IRSATEQLA	0.3064	1816.0	8.00
IAd	223	ICPVGAVVATKTDL	VGAVVATKT	0.3056	1833.2	8.00
IAd	290	KFLSEQVLSRATERV	LSEQVLSRA	0.3027	1889.9	8.00
IAd	527	DKQNRLLRVRSEAKA	LRVRSEAKA	0.3013	1919.7	8.00
IAd	474	KPLRRGHKMIIGMRG	HKMIIGMRG	0.3001	1944.6	16.00
IAd	488	GSYGGVVMIGMLSSV	VVMIGMLSS	0.2988	1973.1	16.00
IAd	302	ERVRAGVLGEIRSAT	VRAGVLGEI	0.2976	1996.8	16.00
IAd	298	SRATERVRAGVLGEI	RATERVRAG	0.2973	2003.5	16.00
IAd	149	AGGREVLRVEVGAPS	LRVEVGAPS	0.2970	2011.2	16.00
IAd	109	VSYSAPPSARLVLA	PSARLVLA	0.2966	2019.2	16.00
IAd	188	ATLGLLPEADAVLV	LPEADAVLV	0.2964	2024.3	16.00
IAd	291	FLSEQVLSRATERVR	LSEQVLSRA	0.2956	2040.6	16.00
IAd	426	YQRSEALADDVARSF	EALADDVAR	0.2955	2042.7	16.00
IAd	303	RVRAGVLGEIRSATE	VRAGVLGEI	0.2934	2089.8	16.00
IAd	288	IVKFLSEQVLSRATE	LSEQVLSRA	0.2932	2096.2	16.00
IAd	64	RITDPQVRVVIAGLL	PQVRVVIAG	0.2918	2126.6	16.00
IAd	192	LLPEADAVLVVSDTS	LPEADAVLV	0.2907	2153.8	16.00
IAd	246	ANAHLQRARVPMPII	ANAHLQRA	0.2901	2167.1	16.00
IAd	193	LPEADAVLVVSDTSQ	LPEADAVLV	0.2900	2168.3	16.00
IAd	487	RGSYGGVVMIGMLSS	VVMIGMLSS	0.2892	2186.8	16.00
IAd	191	GLLPEADAVLVVSDT	LPEADAVLV	0.2872	2236.6	16.00
IAd	610	QRQLGILSQVNDNLA	QRQLGILSQ	0.2863	2256.9	16.00
IAd	492	GVVMIGMLSSVVGGL	VVMIGMLSS	0.2853	2283.2	16.00
IAd	152	REVLRVEVGAPSP	LRVEVGAPS	0.2842	2310.4	16.00
IAd	151	GREVLRVEVGAPSP	LRVEVGAPS	0.2832	2334.6	16.00
IAd	289	VKFLSEQVLSRATER	LSEQVLSRA	0.2831	2338.3	16.00
IAd	351	QQAVQQTALWQQVLG	QQTALWQQV	0.2829	2341.3	16.00
IAd	187	SATLGLLPEADAVLV	ATLGLLPEA	0.2807	2397.4	16.00
IAd	150	GGREVLRVEVGAPSP	LRVEVGAPS	0.2803	2410.0	16.00
IAd	28	DPRKRVGIVELIDHT	RRVGIVEL	0.2802	2410.7	16.00
IAd	287	AVRFLSEQVLSRAT	LSEQVLSRA	0.2797	2425.0	16.00
IAd	239	RWREIVNANAHLQR	WREIVNANA	0.2767	2504.4	16.00
IAd	259	PIIAVSSLLRSHAVT	IAVSSLLRS	0.2767	2504.9	16.00
IAd	342	DLERRKREAQQAVQQ	RRKREAQQA	0.2765	2509.4	16.00
IAd	425	AYQRSEALADDVAR	RSEALADDV	0.2760	2524.9	16.00
IAd	304	VRAGVLGEIRSATEQ	VRAGVLGEI	0.2746	2562.4	16.00
IAd	590	ATIAAAQVAETERDN	IAAAQVAET	0.2697	2701.8	16.00
IAd	528	QNRLLRVRSEAKAN	QNRLLRVR	0.2688	2729.0	16.00

IAd	27	DDPRRVGVIVELIDH	RRVGVIVEL	0.2677	2760.4	16.00
IAd	427	QRSEALADDVARSFA	EALADDVAR	0.2674	2770.8	16.00
IAd	29	PRRVGVIVELIDHTI	RRVGVIVEL	0.2671	2779.1	16.00
IAd	63	QRTDTPQVRVVIAGL	PQVRVVIAG	0.2666	2792.5	16.00
IAd	26	PDDPRRVGVIVELID	RRVGVIVEL	0.2658	2818.0	16.00
IAd	182	GQPHLSATLGLLPEA	PHLSATLGL	0.2656	2824.8	16.00
IAd	225	PVGAVVATKTDLYPR	VGAVVATKT	0.2655	2827.9	16.00
IAd	493	VVMIGMLSSVVGGL	VVMIGMLSS	0.2643	2862.9	16.00
IAd	260	IIAVSSLLRSHAVTL	IAVSSLLRS	0.2639	2876.3	16.00
IAd	286	PAIVKFLSEQVLSRA	LSEQVLSRA	0.2636	2886.4	16.00
IAd	307	REIVNANAHLQRLAV	IRSAEQLA	0.2635	2890.8	16.00
IAd	241	REIVNANAHLQRAR	ANAAHLQRA	0.2633	2894.7	16.00
IAd	466	KALGRMESKPLRRGH	MESKPLRRG	0.2630	2904.8	16.00
IAd	308	VLGEIRSAEQQLAVS	IRSAEQLA	0.2627	2914.0	16.00
IAd	183	QPHLSATLGLLPEAD	PHLSATLGL	0.2592	3027.0	16.00
IAd	105	VITVVSYSQAQPSARL	VITVVSYSA	0.2589	3035.9	16.00
IAd	25	QPDDPRRVGVIVELI	RRVGVIVEL	0.2587	3043.5	16.00
IAd	352	QAVQQTALWQQVLGD	VQQTALWQQ	0.2584	3053.9	16.00
IAd	428	RSEALADDVARSFAD	EALADDVAR	0.2581	3062.0	16.00
IAd	5	LCAYRDLRRKRARKW	YRDLRRKRA	0.2570	3101.1	16.00
IAd	353	AVQQTALWQQVLGDG	QQTALWQQV	0.2549	3169.4	16.00
IAd	603	DNRIRELQRQLGILS	LQRQLGILS	0.2536	3215.9	16.00
IAd	190	LGLLPEADAVLVVSD	LPEADAVLV	0.2534	3222.5	16.00
IAd	316	TEQDAVSLGSELSVV	TEQLAVSLG	0.2511	3302.5	16.00
IAd	439	SFADAGLDSVLSAEL	AGLDSVLSA	0.2507	3319.8	16.00
IAd	533	LRVRSEAKANVRRFV	EAKANVRRF	0.2501	3340.4	16.00
IAd	80	QGKSQLLNSLLNLP	LNSLLNLP	0.2496	3359.2	16.00
IAd	184	PHLSATLGLLPEADA	ATLGLLPEA	0.2490	3381.7	16.00
IAd	534	RVRSEAKANVRRFVD	SEAKANVRR	0.2483	3404.6	16.00
IAd	440	FADAGLDSVLSAELS	AGLDSVLSA	0.2469	3456.2	16.00
IAd	24	TPDDPRRVGVIVEL	RRVGVIVEL	0.2461	3489.0	16.00
IAd	529	QNRLLRVRSEAKANV	QNRLLRVRS	0.2459	3496.4	16.00
IAd	127	GTAAVDIPVDDIST	TTAAVDIPV	0.2446	3544.5	16.00
IAd	189	TLGLLPEADAVLVVS	LPEADAVLV	0.2441	3562.7	16.00
IAd	532	LLRVRSEAKANVRRF	SEAKANVRR	0.2439	3573.7	32.00
IAd	153	EVLRVEVGAPSPLLR	LRVEVGAPS	0.2437	3578.1	32.00
IAd	126	DGTTAAVDIPVDDIS	TTAAVDIPV	0.2436	3585.1	32.00
IAd	244	VNANAHLQRARVPM	ANAAHLQRA	0.2435	3585.9	32.00
IAd	125	PDGTTAAVDIPVDDI	TTAAVDIPV	0.2427	3619.8	32.00
IAd	243	IVNANAHLQRARVP	ANAAHLQRA	0.2423	3633.3	32.00
IAd	580	ITRSLTESLQATIAA	ESLQATIAA	0.2411	3682.6	32.00
IAd	526	EDKQNRLLRVRSEAK	QNRLLRVRS	0.2409	3688.7	32.00
IAd	226	VGAVVATKTDLYPRW	VGAVVATKT	0.2404	3709.0	32.00
IAd	39	IDHTIAIAKLNERGD	DHTIAIAKL	0.2397	3739.7	32.00
IAd	108	VVSYSQAQPSARLVLA	VVSYSQAQPS	0.2389	3771.3	32.00
IAd	245	NANAHLQRARVPMP	ANAAHLQRA	0.2374	3831.4	32.00
IAd	6	CAYRDLRRKRARKWG	YRDLRRKRA	0.2374	3833.7	32.00
IAd	102	ATVVITVVSYSQAQPS	VITVVSYSA	0.2374	3833.7	32.00
IAd	424	WAYQRSEALADDVAR	WAYQRSEAL	0.2369	3853.1	32.00
IAd	34	VIVELIDHTIAIAKL	DHTIAIAKL	0.2365	3868.3	32.00
IAd	11	LRRKRARKWGDVTQ	LRRKRARKW	0.2357	3902.6	32.00
IAd	354	VQQTALWQQVLGDGF	VQQTALWQQ	0.2354	3917.6	32.00
IAd	224	CPVGAVVATKTDLYP	VGAVVATKT	0.2333	4007.2	32.00
IAd	535	VRSEAKANVRRFVDD	SEAKANVRR	0.2329	4021.7	32.00
IAd	38	LIDHTIAIAKLNERG	DHTIAIAKL	0.2328	4027.9	32.00
IAd	154	VLRVEVGAPSPLLRG	LRVEVGAPS	0.2318	4072.6	32.00
IAd	524	YKEDKQNRLLRVRSE	QNRLLRVRS	0.2316	4080.8	32.00
IAd	104	VVITVVSYSQAQPSAR	VITVVSYSA	0.2308	4113.6	32.00
IAd	234	TDLYPRWREIVNANA	WREIVNANA	0.2303	4139.5	32.00
IAd	35	IVELIDHTIAIAKLN	DHTIAIAKL	0.2281	4239.1	32.00
IAd	69	QVRVVIAGLLKQGKS	QVRVVIAGL	0.2253	4369.0	32.00
IAd	592	IAAAQVAETERDNR	IAAAQVAET	0.2253	4369.5	32.00
IAd	525	KEDKQNRLLRVRSEA	QNRLLRVRS	0.2244	4408.3	32.00
IAd	128	TTAAVDIPVDDISTD	TTAAVDIPV	0.2238	4437.4	32.00
IAd	37	ELIDHTIAIAKLNER	DHTIAIAKL	0.2232	4466.9	32.00
IAd	591	TIAAAQVAETERDNR	IAAAQVAET	0.2228	4487.2	32.00
IAd	530	NRLLRVRSEAKANVR	LRVRSEAKA	0.2207	4591.5	32.00
IAd	443	AGLDSVLSAELSPHV	AGLDSVLSA	0.2205	4599.4	32.00
IAd	103	TVVITVVSYSQAQPSA	VITVVSYSA	0.2203	4613.2	32.00
IAd	124	GPDGTTAAVDIPVDD	TTAAVDIPV	0.2200	4625.3	32.00

IAd	441	ADAGLDSVLSAELSP	AGLDSVLSA	0.2197	4642.0	32.00
IAd	306	AGVLGEIRSATEQLA	IRSATEQLA	0.2194	4653.7	32.00
IAd	261	IAVSSLLRSHAVTLN	IAVSSLLRS	0.2194	4654.7	32.00
IAd	279	LNEESNFPPIVKFLS	LNEESNFP	0.2190	4673.9	32.00
IAd	98	GDEEATVVITVVSYS	EATVVITVV	0.2188	4688.6	32.00
IAd	293	SEQVLSRATERVRAG	SEQVLSRAT	0.2184	4709.0	32.00
IAd	36	VELIDHTIAIAKLNE	DHTIAIAKL	0.2183	4712.8	32.00
IAd	473	SKPLRRGHKMIIGMR	GHKMIIGMR	0.2172	4769.3	32.00
IAd	429	SEALADDVARSFADA	EALADDVAR	0.2169	4784.5	32.00
IAd	297	LSRATERVRAGVLGE	RATERVRAG	0.2159	4836.5	32.00
IAd	467	ALGRMESKPLRRGHK	MESKPLRRG	0.2158	4840.8	32.00
IAd	8	YRDLRRKRARKWGDT	LRRKRARKW	0.2156	4851.5	32.00
IAd	341	SDLERRKREAQQAVQ	RRKREAQQA	0.2136	4956.6	32.00
IAd	7	AYRDLRRKRARKWGD	LRRKRARKW	0.2131	4982.6	32.00
IAd	87	NSLLNLPAAARVGDE	NSLLNLPAA	0.2123	5028.9	32.00
IAd	430	EALADDVARSFADAG	EALADDVAR	0.2115	5072.2	32.00
IAd	181	LGQPHLSATLGLLPE	HLSATLGLL	0.2112	5087.1	32.00
IAd	494	VMIGMLSSVVGLGLF	IGMLSSVVG	0.2103	5137.6	32.00
IAd	283	SNFPAIVKFLSEQVL	FPAIVKFLS	0.2101	5146.7	32.00
IAd	468	LGRMESKPLRRGHKM	MESKPLRRG	0.2101	5147.0	32.00
IAd	282	ESNFPPIVKFLSEQV	FPAIVKFLS	0.2101	5150.8	32.00
IAd	296	VLSRATERVRAGVLG	RATERVRAG	0.2097	5169.9	32.00
IAd	295	QVLSRATERVRAGVL	RATERVRA	0.2088	5222.0	32.00
IAd	40	DHTIAIAKLNERGDL	DHTIAIAKL	0.2077	5282.2	32.00
IAd	123	AGPDGTTAAVDIPVD	TTAAVDIPV	0.2077	5282.6	32.00
IAd	531	RLLRVRSEAKANVRR	SEAKANVRR	0.2075	5296.4	32.00
IAd	97	VGDEEATVVITVVSYS	EATVVITVV	0.2074	5302.5	32.00
IAd	263	VSSLLRSHAVTLNDK	VSSLLRSHA	0.2055	5414.5	32.00
IAd	340	ASDLERRKREAQQAV	RRKREAQQA	0.2043	5485.2	32.00
IAd	317	EQLAVSLGSELSVVN	EQLAVSLGS	0.2040	5498.6	32.00
IAd	559	RDLKMKIQRLLRDHY	DRLKMKIQL	0.2025	5592.0	32.00
IAd	625	GLEPTLTPRASLGRA	EPTLTPRAS	0.2018	5629.9	32.00
IAd	442	DAGLDSVLSAELSPH	AGLDSVLSA	0.2015	5648.6	32.00
IAd	194	PEADAVLVVSDTSQE	PEADAVLVV	0.2011	5674.5	32.00
IAd	59	TRARQRITDPQVRVV	RARQRITDP	0.2005	5714.9	32.00
IAd	60	RAYQRITDPQVRVVI	RARQRITDP	0.1998	5757.4	32.00
IAd	523	QRKEDLQNRLLRVRS	QNRLLRVRS	0.1993	5786.4	32.00
IAd	10	DLRRKRARKWGDTV	LRRKRARKW	0.1989	5813.8	32.00
IAd	480	HKMIIGMRGSYGGVV	HKMIIGMRG	0.1988	5821.4	32.00
IAd	355	QQTALWQQVLGDGFN	QQTALWQQV	0.1984	5842.0	32.00
IAd	536	RSEAKANVRRFVDDI	SEAKANVRR	0.1984	5842.6	32.00
IAd	423	VWAYQRSEALADDVA	WAYQRSEAL	0.1983	5848.0	32.00
IAd	242	EIVNANAHLQRARV	ANAHLQRA	0.1980	5868.8	32.00
IAd	558	SRDRLKMKIQRLLRDH	LKMKIQRLR	0.1980	5871.6	32.00
IAd	12	RRKRARKWGDTVQTP	RKWGDTVQ	0.1970	5932.4	32.00
IAd	96	RVGDDEATVVITVVS	EATVVITVV	0.1963	5978.7	32.00
IAd	557	QSRDRLKMKIQRLLRD	DRLKMKIQL	0.1958	6007.6	32.00
IAd	437	ARSFADAGLDSVLSA	AGLDSVLSA	0.1958	6009.6	32.00
IAd	438	LSFADAGLDSVLSAE	AGLDSVLSA	0.1953	6043.6	32.00
IAd	58	RTRARQRITDPQVRV	RARQRITDP	0.1951	6057.5	32.00
IAd	262	AVSSLLRSHAVTLND	VSSLLRSHA	0.1944	6103.3	32.00
IAd	116	SARLVLAAGPDGTTA	SARLVLAAG	0.1938	6139.1	32.00
IAd	185	HLSATLGLLPEADAV	ATLGLLPEA	0.1938	6144.6	32.00
IAd	3	AGLCAYRDLRRKRAR	YRDLRRKRA	0.1936	6154.8	32.00
IAd	2	PAGLCAYRDLRRKRAR	YRDLRRKRA	0.1935	6159.8	32.00
IAd	556	KQSRDRLKMKIQRLR	DRLKMKIQL	0.1934	6167.3	32.00
IAd	538	EAKANVRRFVDDISF	EAKANVRRF	0.1927	6217.5	32.00
IAd	107	TVVSYSQAQPSARLV	VVSYSQAQPS	0.1922	6251.7	32.00
IAd	570	RDHYREIAEEITRSL	YREIAEEIT	0.1912	6320.0	32.00
IAd	571	DHYREIAEEITRSLT	REIAEEITR	0.1907	6353.2	32.00
IAd	106	ITVVSYSQAQPSARLV	VVSYSQAQPS	0.1898	6412.1	32.00
IAd	444	QLRSLDSAEELSPHV	LSAEELSPHV	0.1896	6425.2	32.00
IAd	62	GRDITDPQVRVVIAG	PQVRVVIAG	0.1894	6439.7	32.00
IAd	155	LRVEVGAPSPLLRGG	LRVEVGAPS	0.1873	6586.9	32.00
IAd	280	NEESNFPPIVKFLSE	FPAIVKFLS	0.1871	6602.8	32.00
IAd	560	DRLKMKIQRLLRDHYR	DRLKMKIQL	0.1871	6603.6	32.00
IAd	30	RRVGVIVELIDHTIA	RRVGVIVEL	0.1871	6604.2	32.00
IAd	554	VSKQSRDRLKMKIQL	KQSRDRLKM	0.1865	6647.7	32.00
IAd	284	NFPPIVKFLSEQVLS	FPAIVKFLS	0.1860	6683.4	32.00
IAd	208	EFTEPEMWFVVRQAHQ	PEMWFVVRQA	0.1851	6746.6	32.00

IAd	305	RAGVLGEIRSATEQL	AGVLGEIRS	0.1851	6750.7	32.00
IAd	148	HAGGREVLRVEVGAP	REVLRVEVG	0.1845	6790.4	32.00
IAd	339	LASDLERRKREAQQA	RRKREAQQA	0.1843	6805.3	32.00
IAd	285	FPAIVKFLSEQVLSR	FPAIVKFLS	0.1825	6939.5	32.00
IAd	210	TEPEMWFVRQAHQIC	PEMWFVRQA	0.1822	6962.0	32.00
IAd	388	EDAERQIDSCDPTAH	DAERQIDSC	0.1821	6967.3	32.00
IAd	422	FVWAYQRSEALADDV	WAYQRSEAL	0.1808	7068.6	32.00
IAd	4	GLCAYRDLRRKRARK	YRDLRRKRA	0.1807	7074.9	32.00
IAd	209	FTEPEMWFVRQAHQI	PEMWFVRQA	0.1805	7094.1	32.00
IAd	9	RDLRRKRARKWGDTV	LRRKRARKW	0.1800	7132.7	32.00
IAd	264	SSLRSHAVTLNDKE	LRSHAVTLN	0.1800	7134.9	32.00
IAd	14	KRARKWGDTVTPDD	RKWGDTVTPQ	0.1795	7171.4	32.00
IAd	186	LSATLGLLPEADAVL	ATLGLLPEA	0.1794	7181.3	32.00
IAd	13	RKRARKWGDTVTPD	RKWGDTVTPQ	0.1773	7344.6	50.00
IAd	212	PEMWFVRQAHQICPV	PEMWFVRQA	0.1771	7360.3	50.00
IAd	95	ARVGDEEATVVITVV	EATVVITVV	0.1770	7369.0	50.00
IAd	180	GLGQPHLSATLGLLP	HLSATLGLL	0.1769	7376.0	50.00
IAd	0	MVPAGLCAYRDLRRK	PAGLCAYRD	0.1769	7377.7	50.00
IAd	579	EITRSLTESLQATIA	RSLTESLQA	0.1761	7442.5	50.00
IAd	57	RLTRARQRITDPQVR	ARQRITDPQ	0.1752	7509.2	50.00
IAd	457	VMGTDGRLKALGRM	GRLKALGRM	0.1748	7543.7	50.00
IAd	206	SQEFTEPEMWFVRQA	PEMWFVRQA	0.1743	7588.0	50.00
IAd	537	SEAKANVRRFVDDIS	EAKANVRRF	0.1736	7644.7	50.00
IAd	508	FNPLSVGAGLILGRM	FNPLSVGAG	0.1735	7651.4	50.00
IAd	281	EESNFPAIVKFLSEQ	FPAIVKFLS	0.1723	7753.4	50.00
IAd	294	EQVLSRATERVRAGV	RATERVRAG	0.1715	7817.8	50.00
IAd	207	QEFTEPEMWFVRQAH	PEMWFVRQA	0.1713	7836.8	50.00
IAd	211	EPPEMWFVRQAHQICP	PEMWFVRQA	0.1704	7909.3	50.00
IAd	555	SKQSRDRLKMIQRLL	RDRLKMIQR	0.1693	8006.0	50.00
IAd	495	MIGMLSSVVGLGLFN	IGMLSSVVG	0.1684	8087.0	50.00
IAd	458	MGTDFGRLKALGRME	GRLKALGRM	0.1679	8126.6	50.00
IAd	387	TEDAERQIDSCDPTA	DAERQIDSC	0.1679	8130.8	50.00
IAd	569	LRDHYREIAEEITRS	YREIAEEIT	0.1678	8139.4	50.00
IAd	61	ARQRITDPQVRVVIA	DPQVRVVIA	0.1676	8155.2	50.00
IAd	56	QRLTRARQRITDPQV	RQRITDPQV	0.1670	8209.3	50.00
IAd	50	ERGDLVQRLTRARQR	QRLTRARQR	0.1663	8267.6	50.00
IAd	274	LNDKELNEESNFPAI	LNEESNFPA	0.1659	8307.4	50.00
IAd	122	AAGPDGTTAAVDIPV	TTAAVDIPV	0.1654	8349.5	50.00
IAd	553	VVSKQSRDRLKMIQR	RDRLKMIQR	0.1647	8417.3	50.00
IAd	486	MGRSYGGVVMIGMLS	GVVMIGMLS	0.1644	8443.4	50.00
IAd	51	RGDLVQRLTRARQRI	QRLTRARQR	0.1631	8561.3	50.00
IAd	277	KELNEESNFPAIVKF	LNEESNFPA	0.1623	8638.2	50.00
IAd	509	NPLSVGAGLILGRMA	VGAGLILGR	0.1616	8702.6	50.00
IAd	195	EADAVLVVSDTSQEF	EADAVLVVS	0.1614	8721.1	50.00
IAd	334	NLRDRLASDLERRKR	RLASDLERR	0.1601	8843.3	50.00
IAd	611	RQLGILSQVNDNLAG	RQLGILSQV	0.1594	8916.0	50.00
IAd	386	VTEDAERQIDSCDPT	DAERQIDSC	0.1591	8937.1	50.00
IAd	576	IAEEITRSLTESLQA	RSLTESLQA	0.1589	8957.3	50.00
IAd	550	ISFVVSKQSRDRLKM	ISFVVSKQS	0.1588	8968.9	50.00
IAd	332	QNLDRDLASDLERR	RLASDLERR	0.1587	8976.5	50.00
IAd	318	DLAVSLGSELSVND	QLAVSLGSE	0.1581	9039.0	50.00
IAd	445	LDSVLSAELSPHVMG	LSAELSPHV	0.1581	9039.5	50.00
IAd	568	LLRDHYREIAEEITR	YREIAEEIT	0.1576	9082.0	50.00
IAd	335	LRDRLASDLERRKRE	RLASDLERR	0.1562	9227.2	50.00
IAd	578	EEITRSLTESLQATI	RSLTESLQA	0.1558	9264.1	50.00
IAd	333	PNLDRDLASDLERRK	RLASDLERR	0.1557	9274.8	50.00
IAd	577	AEEITRSLTESLQAT	RSLTESLQA	0.1557	9274.9	50.00
IAd	278	ELNEESNFPAIVKFL	LNEESNFPA	0.1555	9292.5	50.00
IAd	179	GGLGQPHLSATLGLL	HLSATLGLL	0.1542	9422.7	50.00
IAd	276	DKELNEESNFPAIVK	LNEESNFPA	0.1533	9516.9	50.00
IAd	621	DNLAGLEPTLTTPRAS	LEPTLTTPRA	0.1533	9520.5	50.00
IAd	319	LAVSLGSELSVNDP	VSLGSELSV	0.1518	9674.5	50.00
IAd	485	GMRSGYGGVVMIGML	YGGVVMIGM	0.1509	9771.9	50.00
IAd	265	SLLRSHAVTLNDKEL	LRSHAVTLN	0.1501	9855.3	50.00
IAd	431	ALADDVARSFADAGL	ALADDVARS	0.1497	9899.0	50.00
IAd	513	VGAGLILGRMAYKED	GAGLILGRM	0.1495	9921.5	50.00
IAd	53	DLVQRLTRARQRITD	QRLTRARQR	0.1490	9977.4	50.00
IAd	52	GDLVQRLTRARQRIT	QRLTRARQR	0.1488	9997.3	50.00
IAd	551	SFVVSKQSRDRLKMI	KQSRDRLKM	0.1486	10016.8	50.00
IAd	213	EMWFVRQAHQICPVG	QAHQICPVG	0.1483	10044.3	50.00

IAd	54	LVQRLTRARQRITDP	VQRLTRARQ	0.1480	10084.5	50.00
IAd	622	NLAGLEPTLTPRASL	LEPTLTPRA	0.1477	10111.2	50.00
IAd	446	DSVLSAELSPHVMGT	LSAELSPHV	0.1477	10111.5	50.00
IAd	273	TLNDKELNEESNFPA	LNEESNFPA	0.1472	10165.1	50.00
IAd	447	SVLSAELSPHVMGTD	LSAELSPHV	0.1472	10169.7	50.00
IAd	227	GAVVATKTDLYPRWR	ATKTDLYPR	0.1472	10174.1	50.00
IAd	275	NDKELNEESNFPAIV	LNEESNFPA	0.1467	10218.9	50.00
IAd	55	VQRLTRARQRITDPQ	ARQRITDPQ	0.1463	10271.1	50.00
IAd	1	VPAGLCAYRDLRRKR	CAYRDLRRK	0.1452	10391.1	50.00
IAd	512	SVGAGLILGRMAYKE	GAGLILGRM	0.1450	10412.1	50.00
IAd	389	DAERQIDSCDPTAHW	DAERQIDSC	0.1441	10511.5	50.00
IAd	514	GAGLILGRMAYKEDK	AGLILGRMA	0.1439	10536.2	50.00
IAd	510	PLSVGAGLILGRMAY	GAGLILGRM	0.1434	10601.1	50.00
IAd	624	AGLEPTLTPRASLGR	LEPTLTPRA	0.1433	10608.6	50.00
IAd	164	PLLRRGGLAFIDTPGV	RGGLAFIDT	0.1419	10771.0	50.00
IAd	228	AVVATKTDLYPRWRE	ATKTDLYPR	0.1417	10793.7	50.00
IAd	320	AVSLGSELSVNDPN	VSLGSELSV	0.1416	10799.5	50.00
IAd	321	VSLGSELSVNDPNL	VSLGSELSV	0.1405	10928.1	50.00
IAd	448	VLSAELSPHVMGTDF	LSAELSPHV	0.1405	10934.3	50.00
IAd	511	LSVGAGLILGRMAYK	GAGLILGRM	0.1404	10940.1	50.00
IAd	400	TAHWAEIGNDVENAI	AHWAEIGND	0.1402	10970.1	50.00
IAd	401	AHWAEIGNDVENAIA	AHWAEIGND	0.1390	11116.0	50.00
IAd	147	PHAGGREVLRVEVGA	REVLRVEVG	0.1387	11147.8	50.00
IAd	70	VRVVIAGLLKQKKSQ	VRVVIAGLL	0.1384	11189.6	50.00
IAd	266	LLRSHAVTLNDKELN	LRSHAVTLN	0.1378	11254.8	50.00
IAd	165	LLRGGLAFIDTPGVG	RGGLAFIDT	0.1373	11321.9	50.00
IAd	469	GRMESKPLRRGHKMI	MESKPLRRG	0.1371	11344.9	50.00
IAd	384	RTVTEDAERQIDSCD	DAERQIDSC	0.1368	11385.3	50.00
IAd	449	LSAELSPHVMGTDFG	LSAELSPHV	0.1366	11403.9	50.00
IAd	15	RARKWGDVTVTQDDP	RKWGDVTVTQ	0.1365	11419.5	50.00
IAd	496	IGMLSSVVGLGLFNP	IGMLSSVVG	0.1355	11540.2	50.00
IAd	399	PTAHWAEIGNDVENA	AHWAEIGND	0.1345	11662.9	50.00
IAd	336	RDRLASDLERRKREA	RLASDLERR	0.1345	11665.2	50.00
IAd	623	LAGLEPTLTPRASLG	LEPTLTPRA	0.1343	11695.5	50.00
IAd	620	NDNLAGLEPTLTPRA	LEPTLTPRA	0.1341	11713.7	50.00
IAd	507	FNPLSVGAGLILGR	FNPLSVGAG	0.1323	11952.7	50.00
IAd	572	HYEIAEEITRSLTE	REIAEEITR	0.1317	12024.4	50.00
IAd	552	FVVSKQSRDRLKMIQ	KQSRDRLKM	0.1316	12033.3	50.00
IAd	337	DRLASDLERRKREAQ	RLASDLERR	0.1309	12134.3	50.00
IAd	146	APHAGGREVLRVEVG	REVLRVEVG	0.1300	12253.3	50.00
IAd	561	RLKMIQRLLRDHYRE	LKMIQRLLR	0.1294	12334.6	50.00
IAd	421	NFVWAYQRSEALADD	WAYQRSEAL	0.1281	12503.8	50.00
IAd	506	GLFNPLSVGAGLILG	FNPLSVGAG	0.1280	12510.3	50.00
IAd	522	MAYKEDKQNRLLRVR	DKQNRLLRV	0.1278	12543.9	50.00
IAd	166	LRGGLAFIDTPGVGG	RGGLAFIDT	0.1273	12605.7	50.00
IAd	167	RGGLAFIDTPGVGGL	RGGLAFIDT	0.1272	12620.7	50.00
IAd	383	FRTVTEDAERQIDSC	DAERQIDSC	0.1272	12630.1	50.00
IAd	162	PSPLLRGGLAFIDTP	RGGLAFIDT	0.1270	12658.4	50.00
IAd	382	RFRTVTEDAERQIDS	RFRTVTEDA	0.1268	12686.9	50.00
IAd	129	TAAVDIPVDDISTDV	TAAVDIPVD	0.1262	12758.0	50.00
IAd	94	AARVGDDEATVVITV	DEATVVITV	0.1259	12799.7	50.00
IAd	196	ADAVLVVSDTSQEFT	DAVLVVSdT	0.1257	12829.8	50.00
IAd	544	RRFVDDISFVVSQSQS	ISFVVSQSQS	0.1257	12831.1	50.00
IAd	178	VGGLGQPHLSATLGL	PHLSATLGL	0.1252	12906.9	50.00
IAd	455	PHVMGTDFGRLKALG	VMGTDFGRL	0.1240	13076.9	50.00
IAd	322	SLGSELSVNDPNLR	LGSELSVVN	0.1233	13166.2	50.00
IAd	405	EIGNDVENAIATAVG	DVENAIATA	0.1232	13183.0	50.00
IAd	593	AAAQVAETERDNRIR	AAAQVAETE	0.1222	13334.6	50.00
IAd	456	HVMGTDFGRLKALGR	FGRLKALGR	0.1221	13337.7	50.00
IAd	454	SPHVMGTDFGRLKAL	TDFGRLKAL	0.1218	13389.3	50.00
IAd	408	NDVENAIATAVGDNF	ENAIATAVG	0.1181	13929.8	50.00
IAd	505	LGLFNPLSVGAGLIL	FNPLSVGAG	0.1180	13943.0	50.00
IAd	484	DIGMRNPSYGGVVMIGM	YGGVVMIGM	0.1177	13994.5	50.00
IAd	549	ISFVVSQSRDRLK	ISFVVSQSQS	0.1173	14048.8	50.00
IAd	49	NERGDLVQRLTRARQ	LVQRLTRAR	0.1171	14077.7	50.00
IAd	404	AEIGNDVENAIATAV	VENAIATAV	0.1170	14096.2	50.00
IAd	229	VVATKTDLYPRWREI	ATKTDLYPR	0.1170	14105.0	50.00
IAd	398	DPTAHWAEIGNDVEN	AHWAEIGND	0.1167	14143.5	50.00
IAd	44	AIAKLNERGDLVQRL	NERGDLVQR	0.1161	14235.3	50.00
IAd	385	TVTEDAERQIDSCDP	DAERQIDSC	0.1159	14261.4	50.00

IAd	88	SLLNLPAAARVGDDEA	LLNLPAARV	0.1155	14328.1	50.00
IAd	601	ERDNRIRELQRQLGI	IRELQRQLG	0.1148	14444.5	50.00
IAd	161	APSPLLRGGLAFIDT	RGGLAFIDT	0.1140	14571.8	50.00
IAd	602	RDNRIRELQRQLGIL	IRELQRQLG	0.1129	14742.9	50.00
IAd	132	VDPVDDISTDVRRA	DISTDVRRA	0.1125	14802.2	50.00
IAd	43	IAIAKLNERGDLVQR	IAIAKLNER	0.1121	14870.9	50.00
IAd	23	VTQPDDPRRVGVIVE	PRRVGVIVE	0.1120	14879.3	50.00
IAd	470	RMESKPLRRGHKMLI	MESKPLRRG	0.1117	14934.8	50.00
IAd	497	GMLSSVVGLGLFNPL	LSSVVGLGL	0.1115	14961.1	50.00
IAd	230	VATKTDLYPRWREIV	ATKTDLYPR	0.1114	14978.6	50.00
IAd	381	RFRTVTEDAERQID	RFRTVTEDA	0.1109	15069.0	50.00
IAd	407	GNDVENAIATAVGDN	VENAIATAV	0.1107	15094.0	50.00
IAd	267	LRSHAVTLNDKELNE	LRSHAVTLN	0.1107	15096.3	50.00
IAd	133	DIPVDDISTDVRRAP	DISTDVRRA	0.1105	15122.2	50.00
IAd	471	MESKPLRRGHKMLIG	MESKPLRRG	0.1105	15133.5	50.00
IAd	231	ATKTDLYPRWREIVN	ATKTDLYPR	0.1094	15306.1	50.00
IAd	16	ARKWGDTVTQPDDPR	RKWGDTVTQ	0.1092	15333.3	50.00
IAd	420	DNFVWAYQRSEALAD	WAYQRSEAL	0.1091	15355.4	50.00
IAd	539	AKANVRRFVDDISFV	RRFVDDISF	0.1091	15357.2	50.00
IAd	406	IGNDVENAIATAVGD	DVENAIATA	0.1088	15403.3	50.00
IAd	573	YREIAEEITRSLTES	REIAEEITR	0.1082	15505.5	50.00
IAd	233	KTDLYPRWREIVNAN	PRWREIVNA	0.1076	15602.6	50.00
IAd	453	LSPHVMGTDFGRLKA	VMGTDFGRL	0.1074	15648.7	50.00
IAd	548	LDISFVVSQSRDRL	ISFVVSQQS	0.1072	15682.6	50.00
IAd	45	IAKLNERGDLVQRLT	NERGDLVQR	0.1054	15992.6	50.00
IAd	197	DAVLVVS DTSQE FTE	DAVLVVS DT	0.1048	16094.9	50.00
IAd	600	TERDNRIRELQRQLG	IRELQRQLG	0.1047	16099.0	50.00
IAd	163	SPLLRGGLAFIDTPG	RGGLAFIDT	0.1047	16108.3	50.00
IAd	79	KQGKSQLLNSLLNLP	GKSQLLNSL	0.1044	16161.9	50.00
IAd	562	LKMIQRLLRDHYREI	LKMIQRLLR	0.1042	16200.6	50.00
IAd	380	RTRFRTVTEDAERQI	RFRTVTEDA	0.1042	16201.3	50.00
IAd	397	CDPTAHWAEIGNDVE	TAHWAEIGN	0.1037	16288.1	50.00
IAd	574	REIAEEITRSLTESL	REIAEEITR	0.1029	16420.4	50.00
IAd	481	KMIIGMRGSYGGVVM	KMIIGMRGS	0.1021	16557.6	50.00
IAd	410	VENAIATAVGDNFVW	VENAIATAV	0.1011	16747.0	50.00
IAd	541	ANVRRFVDDISFVVS	RRFVDDISF	0.1010	16772.2	50.00
IAd	567	RLNRDHYREIAEEIT	YREIAEEIT	0.1009	16784.9	50.00
IAd	138	DISTDVRRAPHAGGR	DISTDVRRA	0.1004	16872.9	50.00
IAd	547	VDDISFVVSQSRDR	ISFVVSQQS	0.1004	16881.4	50.00
IAd	396	SCDPTAHWAEIGNDV	AHWAEIGND	0.1003	16884.7	50.00
IAd	156	RVEVGAPSPLLRGGL	VEVGAPSPL	0.1002	16908.1	50.00
IAd	331	NDPNLRDRLASDLER	LRDRLASDL	0.0997	16997.6	50.00
IAd	137	DDISTDVRRAPHAGG	DISTDVRRA	0.0996	17019.2	50.00
IAd	452	ELSPHVMGTDFGRLK	VMGTDFGRL	0.0996	17021.2	50.00
IAd	369	NDLTADVVDHDLRTRF	VDHDLRTRF	0.0992	17097.6	50.00
IAd	356	QTALWQQVLGDGFND	ALWQQVLGD	0.0991	17118.0	50.00
IAd	436	VARSFADAGLDSVLS	DAGLDSVLS	0.0988	17174.4	50.00
IAd	338	RLASDLERRKREAAQ	RLASDLER	0.0986	17208.4	50.00
IAd	46	AKLNERGDLVQRLTR	NERGDLVQR	0.0984	17240.7	50.00
IAd	78	LKQGKSQLLNSLLNL	GKSQLLNSL	0.0983	17267.5	50.00
IAd	450	SAELSPHVMGTDFGR	SAELSPHVM	0.0981	17304.8	50.00
IAd	135	PVDDISTDVRRAPHA	DISTDVRRA	0.0971	17481.8	50.00
IAd	418	VGDNFVWAYQRSEAL	NFVWAYQRS	0.0970	17512.7	50.00
IAd	545	RFVDDISFVVSQSR	ISFVVSQQS	0.0967	17556.9	50.00
IAd	75	AGLLKQGKSQLLNSL	GKSQLLNSL	0.0965	17593.4	50.00
IAd	419	GDNFVWAYQRSEALA	WAYQRSEAL	0.0959	17721.4	50.00
IAd	368	FNDLTADVVDHDLRTR	LTADVVDHDL	0.0956	17775.6	50.00
IAd	483	IIGMRGSYGGVVMIG	SYGGVVMIG	0.0956	17779.2	50.00
IAd	17	RKWGDTVTQPDDPRR	RKWGDTVTQ	0.0955	17796.9	50.00
IAd	134	IPVDDISTDVRRAPH	DISTDVRRA	0.0947	17948.3	50.00
IAd	33	GVIVELIDHTIAIAK	IDHTIAIAK	0.0945	17980.4	50.00
IAd	159	VGAPSPLLRGGLAFI	VGAPSPLLR	0.0944	18009.8	50.00
IAd	542	NVRRFVDDISFVVS	RRFVDDISF	0.0943	18024.4	50.00
IAd	136	VDDISTDVRRAPHAG	DISTDVRRA	0.0938	18130.6	50.00
IAd	157	VEVGAPSPLLRGGLA	VEVGAPSPL	0.0933	18227.2	50.00
IAd	409	DVENAIATAVGDNFV	VENAIATAV	0.0931	18252.3	50.00
IAd	370	DLTADVVDHDLRTRFR	VDHDLRTRF	0.0928	18314.0	50.00
IAd	595	AQVAETERDNRIREL	AQVAETERD	0.0920	18470.0	50.00
IAd	395	DSCDPTAHWAEIGND	AHWAEIGND	0.0913	18612.9	50.00
IAd	540	KANVRRFVDDISFVV	RRFVDDISF	0.0910	18672.2	50.00

IAd	77	LLKQKGKSQLLNSLLN	GKSQLLNSL	0.0908	18726.4	50.00
IAd	89	LLNLPAARVGDEAT	LLNLPAARV	0.0902	18838.6	50.00
IAd	599	ETERDNRIRELQRQL	ERDNRIREL	0.0900	18874.7	50.00
IAd	379	LRTRFRTVTEDAERQ	RFRTVTEDA	0.0896	18967.4	50.00
IAd	117	ARLVLAAGPDGTAA	ARLVLAAGP	0.0893	19030.3	50.00
IAd	546	FVDDISFVVSQSRD	ISFVVSQSQS	0.0878	19327.3	50.00
IAd	566	QRLLRDHYREIAEEI	QRLLRDHYR	0.0878	19331.4	50.00
IAd	158	EVGAPSPLLRGGLAF	VGAPSPLLR	0.0878	19332.9	50.00
IAd	598	AETERDNRIRELQRQ	NRIRELQRQ	0.0876	19372.5	50.00
IAd	415	ATAVGDNFVWAYQRS	NFVWAYQRS	0.0874	19411.9	50.00
IAd	518	ILGRMAYKEDKQNR	LGRMAYKED	0.0872	19462.4	50.00
IAd	482	MIIGMRGSYGGVMI	IGMRGSYGG	0.0871	19483.0	50.00
IAd	432	LADDVARSFADAGLD	LADDVARSF	0.0870	19514.7	50.00
IAd	71	RVVIAGLLKQKSQL	RVVIAGLLK	0.0869	19518.5	50.00
IAd	451	AELSPHVMGTFDFRL	AELSPHVMG	0.0865	19602.9	50.00
IAd	504	GLGLFNPLSVGAGLI	FNPLSVGAG	0.0859	19732.3	50.00
IAd	42	TIAIAKLNERGDLVQ	IAIAKLNER	0.0859	19746.0	50.00
IAd	76	GLLKQKGKSQLLNSLL	GKSQLLNSL	0.0858	19763.3	50.00
IAd	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.0857	19771.2	50.00
IAd	323	LGSELSVNDPNLRD	LGSELSVND	0.0850	19940.9	50.00
IAd	48	LNERGDLVQRLTRAR	LVQRLTRAR	0.0848	19981.3	50.00
IAd	503	VGLGLFNPLSVGAGL	FNPLSVGAG	0.0833	20301.2	50.00
IAd	41	HTIAIAKLNERGDLV	HTIAIAKLN	0.0833	20301.5	50.00
IAd	416	TAVGDNFVWAYQRSE	NFVWAYQRS	0.0832	20330.7	50.00
IAd	594	AAQVAETERDNRIRE	AAQVAETER	0.0830	20358.0	50.00
IAd	232	TKTDLYPRWREIVNA	PRWREIVNA	0.0828	20404.9	50.00
IAd	403	WAEIGNDVENAIATA	DVENAIATA	0.0824	20501.4	50.00
IAd	543	VRRFVDDISFVVSQK	RRFVDDISF	0.0818	20645.5	50.00
IAd	357	TALWQQVLGDGFNDL	WQQVLGDGF	0.0811	20801.1	50.00
IAd	31	RVGVIVELIDHTIAI	RVGVIVELI	0.0810	20813.0	50.00
IAd	145	RAPHAGGREVLRVEV	GREVLRVEV	0.0801	21013.9	50.00
IAd	515	AGLILGRMAYKEDKQ	AGLILGRMA	0.0801	21025.1	50.00
IAd	502	VVGLGLFNPLSVGAG	FNPLSVGAG	0.0801	21028.0	50.00
IAd	268	RSHAVTLNDKELNEE	SHAVTLNDK	0.0795	21149.4	50.00
IAd	521	RMAYKEDKQNRLLRV	DKQNRLLRV	0.0793	21193.9	50.00
IAd	499	LSSVVGLGLFNPLSV	LSSVVGLGL	0.0790	21273.6	50.00
IAd	121	LAAGVDGTAAVDIP	GTAAVDIP	0.0786	21366.5	50.00
IAd	517	LILGRMAYKEDKQNR	LGRMAYKED	0.0773	21653.3	50.00
IAd	168	GGLAFIDTPGVGGLG	LAFIDTPGV	0.0772	21683.0	50.00
IAd	472	ESKPLRRGHKMIIGM	RGHKMIIGM	0.0771	21719.0	50.00
IAd	358	ALWQQVLGDGFNDLT	ALWQQVLGD	0.0768	21790.1	50.00
IAd	498	MLSSVVGLGLFNPLS	LSSVVGLGL	0.0767	21816.2	50.00
IAd	565	IQRLLRDHYREIAEE	QRLLRDHYR	0.0752	22169.1	50.00
IAd	435	DVARSFADAGLDSV	FADAGLDSV	0.0748	22259.5	50.00
IAd	597	VAETERDNRIRELQR	ERDNRIREL	0.0746	22318.3	50.00
IAd	72	VVIAGLLKQKSQLL	VVIAGLLKQ	0.0744	22360.2	50.00
IAd	596	QVAETERDNRIRELQ	ERDNRIREL	0.0743	22373.2	50.00
IAd	417	AVGDNFVWAYQRSEA	NFVWAYQRS	0.0741	22417.6	50.00
IAd	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.0740	22455.7	50.00
IAd	378	LDTRFRTVTEDAER	RFRTVTEDA	0.0733	22622.0	50.00
IAd	140	STVRRRAPHAGGREV	DVRRAPHAG	0.0730	22705.4	50.00
IAd	434	DDVARSFADAGLDSV	FADAGLDSV	0.0728	22745.9	50.00
IAd	177	GVGGLGQPHLSATLG	QPHLSATLG	0.0723	22858.9	50.00
IAd	371	LTADVHDHLRTRFRT	LTADVHDHL	0.0723	22869.3	50.00
IAd	519	LGRMAYKEDKQNRLL	LGRMAYKED	0.0720	22952.9	50.00
IAd	18	KNGDVTYQPDPPRV	VTQPDPPRV	0.0717	23012.8	50.00
IAd	90	LNLPAARVGDEATV	ARVGDEAT	0.0699	23465.1	50.00
IAd	367	GFNDLTADVHDHLRT	LTADVHDHL	0.0697	23531.5	50.00
IAd	141	TDVRRRAPHAGGREVL	DVRRAPHAG	0.0689	23722.4	50.00
IAd	376	DHDLRTRFRTVTEDA	RFRTVTEDA	0.0683	23868.9	50.00
IAd	411	ENAIATAVGDNFVWA	ENAIATAVG	0.0682	23915.5	50.00
IAd	93	PAQVGDDEATVVIT	DDEATVVIT	0.0681	23940.1	50.00
IAd	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.0674	24110.8	50.00
IAd	500	SSVVGLGLFNPLSVG	LGLFNPLSV	0.0674	24115.0	50.00
IAd	325	SELSVNDPNLRDRL	SELSVNDP	0.0657	24563.8	50.00
IAd	413	AIATAVGDNFVWAYQ	IATAVGDNF	0.0654	24634.8	50.00
IAd	131	AVDIPVDDISTDVR	AVDIPVDDI	0.0654	24640.2	50.00
IAd	412	NAIATAVGDNFVWAY	AIATAVGDN	0.0653	24660.9	50.00
IAd	47	KLNERGDLVQRLTRA	NERGDLVQR	0.0648	24802.8	50.00
IAd	516	GLILGRMAYKEDKQN	ILGRMAYKE	0.0645	24892.0	50.00

IAd	563	KMIQRLLRDHYREIA	KMIQRLLRD	0.0639	25032.7	50.00
IAd	91	NLPAARVGDDDEATVV	LPAARVGDD	0.0637	25088.9	50.00
IAd	92	LPAARVGDDDEATVVI	AARVGDDDEA	0.0631	25259.4	50.00
IAd	575	EIAEEITRSLTESLQ	IAEEITRSL	0.0630	25301.0	50.00
IAd	19	WGDVTVTQPDDPRRVG	VTQPDDPRR	0.0629	25318.8	50.00
IAd	377	HDLRTRFRFTVTEDAE	RFRTVTEDA	0.0627	25370.0	50.00
IAd	402	HWAEIGNDVENAIAT	NDVENAIAT	0.0626	25391.2	50.00
IAd	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.0622	25497.4	50.00
IAd	501	SVVGLGLFNPLSVGA	VGLGLFNPL	0.0622	25517.9	50.00
IAd	324	GSELSVVNDPNLRDR	GSELSVVND	0.0620	25577.3	50.00
IAd	269	SHAVTLNDKELNEES	SHAVTLNDK	0.0617	25655.5	50.00
IAd	366	DGFNDLTADVHDHLR	LTADVHDHL	0.0611	25801.1	50.00
IAd	372	TADVHDHLRTRFRFTV	HDLRTRFRFT	0.0610	25839.0	50.00
IAd	169	GLAFIDTPGVGGLGQ	LAFIDTPGV	0.0607	25921.9	50.00
IAd	74	IAGLLKQGKSQLLNS	LKQGKSQLL	0.0606	25961.8	50.00
IAd	618	QVNDNLAGLEPTLTTP	LAGLEPTLT	0.0601	26100.9	50.00
IAd	373	ADVDHDLRTRFRFTVT	HDLRTRFRFT	0.0595	26270.1	50.00
IAd	414	IATAVGDNFVWAYQR	DNFVWAYQR	0.0593	26310.7	50.00
IAd	160	GAPSPLLRGGLAFID	GAPSPLLRG	0.0590	26396.6	50.00
IAd	433	ADDVARSFADAGLDS	SFADAGLDS	0.0577	26777.4	50.00
IAd	73	VIAGLLKQGKSQLLN	LKQGKSQLL	0.0574	26862.8	50.00
IAd	139	ISTDVRRAPHAGGRE	DVRRAPHAG	0.0573	26886.6	50.00
IAd	327	LSVVNDPNLRDRLAS	PNLRDRLAS	0.0571	26953.0	50.00
IAd	564	MIQRLLRDHYREIAE	MIQRLLRDH	0.0568	27033.0	50.00
IAd	329	VVNDPNLRDRLASDL	PNLRDRLAS	0.0567	27086.6	50.00
IAd	130	AAVDIPVDDISTDVR	AAVDIPVDD	0.0563	27195.3	50.00
IAd	170	LAFIDTPGVGGLGQP	LAFIDTPGV	0.0557	27356.4	50.00
IAd	374	DVDHDLRTRFRFTVTE	HDLRTRFRFT	0.0556	27391.0	50.00
IAd	330	VNDPNLRDRLASDLE	PNLRDRLAS	0.0556	27407.6	50.00
IAd	615	ILSQVNDNLAGLEPT	LSQVNDNLA	0.0550	27580.2	50.00
IAd	616	LSQVNDNLAGLEPTL	LSQVNDNLA	0.0546	27689.0	50.00
IAd	144	RRAPHAGGREVLRVE	AGGREVLRV	0.0546	27700.7	50.00
IAd	365	GDGFNDLTADVHDHL	LTADVHDHL	0.0540	27865.1	50.00
IAd	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.0537	27958.8	50.00
IAd	32	VGIVELIDHTIAIA	VELIDHTIA	0.0535	28034.8	50.00
IAd	619	VNDNLAGLEPTLTTPR	LAGLEPTLT	0.0531	28150.3	50.00
IAd	394	IDSCDPTAHWAEIGN	IDSCDPTAH	0.0528	28241.8	50.00
IAd	270	HAVTLNDKELNEESN	HAVTLNDKE	0.0496	29238.4	50.00
IAd	326	ELSVVNDPNLRDRLA	LSVVNDPNL	0.0490	29424.3	50.00
IAd	359	LWQQVLGDGFNDLTA	LWQQVLGDG	0.0489	29445.7	50.00
IAd	612	QLGILSQVNDNLAGL	LSQVNDNLA	0.0481	29707.1	50.00
IAd	205	TSQEFTEPEMWFVRQ	EPPEMWFVRQ	0.0462	30342.2	50.00
IAd	142	DVRRAPHAGGREVLR	RRAPHAGGR	0.0459	30414.8	50.00
IAd	143	VRRAPHAGGREVLRV	AGGREVLRV	0.0451	30696.5	50.00
IAd	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.0450	30715.4	50.00
IAd	120	VLAAGPDGTTAAVDI	DGTTAAVDI	0.0440	31050.9	50.00
IAd	375	VDHDLRTRFRFTVTE	HDLRTRFRFT	0.0435	31235.9	50.00
IAd	204	DTSQEFTEPEMWFVR	TEPEMWFVR	0.0416	31891.2	50.00
IAd	328	SVVNDPNLRDRLASD	PNLRDRLAS	0.0412	32002.9	50.00
IAd	520	GRMAYKEDKQNRLLR	YKEDKQNR	0.0411	32043.4	50.00
IAd	119	LVLAAGPDGTTAAVD	GPDGTTAAV	0.0409	32110.8	50.00
IAd	203	SDTSQEFTEPEMWFV	FTEPEMWFV	0.0394	32659.1	50.00
IAd	393	QIDSCDPTAHWAEIG	QIDSCDPTA	0.0393	32682.1	50.00
IAd	613	LGILSQVNDNLAGLE	SQVNDNLAG	0.0391	32757.5	50.00
IAd	614	GILSQVNDNLAGLEP	SQVNDNLAG	0.0384	33008.0	50.00
IAd	22	TVTQPDDPRRVGVIV	VTQPDDPRR	0.0381	33123.2	50.00
IAd	364	LDGDFNDLTADVHDH	DLTADVHDH	0.0380	33140.7	50.00
IAd	201	VVSDTSQEFTEPEMW	VVSDTSQEF	0.0378	33219.7	50.00
IAd	271	AVTLNDKELNEESNF	AVTLNDKEL	0.0376	33287.4	50.00
IAd	272	VTLNDKELNEESNFP	NDKELNEES	0.0375	33327.4	50.00
IAd	360	WQQVLGDGFNDLTAD	WQQVLGDGF	0.0338	34683.8	50.00
IAd	202	VSDTSQEFTEPEMWF	SQEFTEPEM	0.0334	34831.2	50.00
IAd	21	DTVTQPDDPRRVGVI	VTQPDDPRR	0.0334	34837.2	50.00
IAd	200	LVVSDTSQEFTEPEM	VVSDTSQEF	0.0306	35910.3	50.00
IAd	176	PGVGGLGQPHLSATL	LGQPHLSAT	0.0299	36172.7	50.00
IAd	20	GDTVTVTQPDDPRRVGV	VTQPDDPRR	0.0294	36373.7	50.00
IAd	173	IDTPGVGGLGQPHLS	IDTPGVGGL	0.0290	36536.6	50.00
IAd	175	TPGVGGLGQPHLSAT	LGQPHLSAT	0.0278	36996.1	50.00
IAd	199	VLVVSDTSQEFTEPE	VVSDTSQEF	0.0244	38386.5	50.00
IAd	363	VLGDGFNDLTADVHDH	GDGFNDLTA	0.0234	38813.8	50.00

IAd	172	FIDTPGVGGLGQPHL	IDTPGVGGL	0.0233	38848.6	50.00
IAd	171	AFIDTPGVGGLGQPH	IDTPGVGGL	0.0221	39346.6	50.00
IAd	361	QQVLGDGFNDLTADV	GDGFNDLTA	0.0215	39619.1	50.00
IAd	174	DTPGVGGLGQPHLSA	GLGQPHLSA	0.0214	39651.7	50.00
IAd	362	QVLGDGFNDLTADV	GDGFNDLTA	0.0199	40304.4	50.00

Allele: IAd. Number of high binders 0. Number of weak binders 19. Number of peptides 626

Allele	pos	peptide	core	1-log50k(aff)	affinity(nM)	Bind Level	%Random
IAs	248	AAHLQRRARVPMPPIA	QRRARVPMP	0.4080	604.9	0.80	
IAs	249	AHLQRRARVPMPPIAV	AHLQRRARVP	0.4054	622.5	0.80	
IAs	247	NAAHLQRRARVPMPPII	AHLQRRARVP	0.3973	679.2	0.80	
IAs	251	LQRRARVPMPPIAVSS	LQRRARVPMP	0.3506	1125.8	2.00	
IAs	246	ANAAHLQRRARVPMPPI	AHLQRRARVP	0.3479	1158.8	2.00	
IAs	250	HLQRRARVPMPPIAVS	LQRRARVPMP	0.3467	1174.2	2.00	
IAs	165	LLRGGLAFIDTPGVG	AFIDTPGVG	0.3348	1335.7	2.00	
IAs	166	LRGGLAFIDTPGVGG	AFIDTPGVG	0.3187	1589.3	2.00	
IAs	201	VVSDTSQEFTEPEMW	QEFTEPEMW	0.3186	1591.5	2.00	
IAs	15	ARKWGDVTVTQPDDP	DTVTQPDDP	0.3084	1778.3	4.00	
IAs	16	RARKWGDVTVTQPDDPR	DTVTQPDDP	0.3070	1804.7	4.00	
IAs	167	RGGLAFIDTPGVGGL	AFIDTPGVG	0.3047	1849.9	4.00	
IAs	202	VSDTSQEFTEPEMWF	QEFTEPEMW	0.3035	1874.0	4.00	
IAs	17	RKWGDVTVTQPDDPRR	DTVTQPDDP	0.2987	1974.3	4.00	
IAs	168	GGLAFIDTPGVGGLG	AFIDTPGVG	0.2968	2014.2	4.00	
IAs	18	KWGDVTVTQPDDPRRV	DTVTQPDDP	0.2947	2060.8	4.00	
IAs	203	SDTSQEFTEPEMWFV	QEFTEPEMW	0.2884	2207.4	4.00	
IAs	243	IVNANAHLQRRARVP	AHLQRRARVP	0.2848	2295.8	4.00	
IAs	57	RLTRARQRITDPQVR	QRITDPQVR	0.2793	2435.2	4.00	
IAs	112	SAQPSARLVLAAGPD	RLVLAAGPD	0.2787	2450.3	4.00	
IAs	204	DTSQEFTEPEMWFVR	QEFTEPEMW	0.2774	2486.6	4.00	
IAs	322	SLGSELSVVNDPNLR	SVVNDPNLR	0.2740	2578.3	4.00	
IAs	245	NANAHLQRRARVPMP	AHLQRRARVP	0.2724	2622.8	4.00	
IAs	170	LAFIDTPGVGGLGQP	AFIDTPGVG	0.2721	2632.3	4.00	
IAs	252	QRRARVPMPPIAVSSL	QRRARVPMP	0.2714	2653.5	4.00	
IAs	113	AQPSARLVLAAGPDG	ARLVLAAGP	0.2711	2660.9	4.00	
IAs	205	TSQEFTEPEMWFVRQ	QEFTEPEMW	0.2682	2744.7	4.00	
IAs	58	LTRARQRITDPQVRV	QRITDPQVR	0.2679	2753.9	4.00	
IAs	114	QPSARLVLAAGPDGT	RLVLAAGPD	0.2678	2758.8	4.00	
IAs	244	VNANAHLQRRARVPM	AHLQRRARVP	0.2646	2853.6	8.00	
IAs	323	LGSELSVVNDPNLRD	SVVNDPNLR	0.2611	2965.2	8.00	
IAs	127	GTAAVDIPVDDIST	GTAAVDIP	0.2593	3024.1	8.00	
IAs	468	LGRMESKPLRRGHKM	KPLRRGHKM	0.2580	3067.5	8.00	
IAs	169	GLAFIDTPGVGGLGQ	AFIDTPGVG	0.2577	3075.8	8.00	
IAs	59	TRARQRITDPQVRVV	QRITDPQVR	0.2565	3117.4	8.00	
IAs	126	DGTTAAVDIPVDDIS	GTAAVDIP	0.2559	3137.3	8.00	
IAs	171	AFIDTPGVGGLGQPH	AFIDTPGVG	0.2558	3140.6	8.00	
IAs	206	SQEFTEPEMWFVRQA	QEFTEPEMW	0.2539	3204.8	8.00	
IAs	124	GPDGTTAAVDIPVDD	AAVDIPVDD	0.2536	3215.5	8.00	
IAs	324	GSELSVVNDPNLRDR	SVVNDPNLR	0.2519	3275.6	8.00	
IAs	125	PDGTTAAVDIPVDDI	AAVDIPVDD	0.2507	3318.4	8.00	
IAs	60	RARQRITDPQVRVVI	QRITDPQVR	0.2480	3416.1	8.00	
IAs	469	GRMESKPLRRGHKMI	KPLRRGHKM	0.2471	3451.2	8.00	
IAs	325	SELSVVNDPNLRDRL	SVVNDPNLR	0.2462	3482.5	8.00	
IAs	173	IDTPGVGGLGQPHLS	GGLGQPHLS	0.2416	3662.8	8.00	
IAs	117	ARLVLAAGPDGTTAA	ARLVLAAGP	0.2400	3723.9	8.00	
IAs	470	RMESKPLRRGHKMI	KPLRRGHKM	0.2371	3845.9	8.00	
IAs	471	MESKPLRRGHKMIIG	KPLRRGHKM	0.2337	3989.9	8.00	
IAs	151	GREVLVEVGAPSPL	VEVGAPSPL	0.2332	4009.0	8.00	
IAs	116	SARLVLAAGPDGTTA	ARLVLAAGP	0.2327	4030.0	8.00	
IAs	115	PSARLVLAAGPDGTT	ARLVLAAGP	0.2290	4198.2	8.00	
IAs	152	REVLVEVGAPSPLL	VEVGAPSPL	0.2221	4523.7	8.00	
IAs	20	GDTVTQPDDPRRVGV	DTVTQPDDP	0.2196	4643.7	8.00	
IAs	19	WGDVTVTQPDDPRRVG	DTVTQPDDP	0.2176	4749.1	8.00	
IAs	61	ARQRITDPQVRVVIA	QRITDPQVR	0.2174	4760.4	8.00	
IAs	174	DTPGVGGLGQPHLSA	PGVGGLGQP	0.2172	4767.6	8.00	
IAs	207	QEFTEPEMWFVRQAH	QEFTEPEMW	0.2171	4771.9	8.00	

IAS	139	ISTDVRRAPHAGGRE	TDVRRAPHA	0.2115	5073.7	16.00
IAS	175	TPGVGGLGQPHLSAT	GGLGQPHLS	0.2108	5110.8	16.00
IAS	176	PGVGGGLGQPHLSATL	GGLGQPHLS	0.2103	5137.5	16.00
IAS	153	KRLRVEVGAPSPLLR	VEVGAPSPL	0.2101	5147.5	16.00
IAS	14	EVRRKRWGDTVTQDD	KWGDTVTQP	0.2075	5294.6	16.00
IAS	212	PEMWFVRQAHQICPV	RQAHQICPV	0.2043	5479.9	16.00
IAS	515	AGLILGRMAYKEDKQ	RMAYKEDKQ	0.2029	5567.4	16.00
IAS	154	VLRVEVGAPSPLLRG	VEVGAPSPL	0.2020	5619.4	16.00
IAS	156	RVEVGAPSPLLRGGL	VEVGAPSPL	0.2013	5661.8	16.00
IAS	63	QRITDPQVRVVIAGL	QRITDPQVR	0.2003	5726.9	16.00
IAS	123	AGPDGTTAAVDIPVD	GTAAVDIP	0.1996	5767.1	16.00
IAS	85	LLNSLLNLPAAARVG	LLNSLLNLP	0.1979	5873.6	16.00
IAS	84	QLLNSLLNLPAAARVG	LLNSLLNLP	0.1975	5900.6	16.00
IAS	587	SLQATIAAAQVAETE	ATIAAAQVA	0.1943	6110.3	16.00
IAS	155	LRVEVGAPSPLLRGG	VEVGAPSPL	0.1942	6114.3	16.00
IAS	253	RARVPMPIIAVSSLL	ARVPMPIIA	0.1930	6196.3	16.00
IAS	172	FIDTPGVGGLGQPHL	PGVGGGLGQP	0.1921	6254.7	16.00
IAS	135	PVDDISTDVRRAPHA	TDVRRAPHA	0.1916	6292.3	16.00
IAS	140	STDVRRAPHAGGREV	TDVRRAPHA	0.1898	6410.7	16.00
IAS	82	KSQLLNSLLNLPAAAR	SLLNLPAAAR	0.1881	6530.9	16.00
IAS	473	SKPLRRGHKMIIGMR	KPLRRGHKM	0.1871	6605.5	16.00
IAS	62	RQRITDPQVRVVIAG	QRITDPQVR	0.1868	6623.1	16.00
IAS	118	RLVLAAGPDGTTAAV	RLVLAAGPD	0.1868	6624.1	16.00
IAS	588	LQATIAAAQVAETER	ATIAAAQVA	0.1864	6654.5	16.00
IAS	223	ICPVGAVVATKTDLY	VVATKTDLY	0.1864	6655.6	16.00
IAS	472	ESKPLRRGHKMIIGM	KPLRRGHKM	0.1852	6744.3	16.00
IAS	83	SQLLNSLLNLPAAARV	SLLNLPAAAR	0.1841	6819.0	16.00
IAS	213	EMWFVRQAHQICPVG	RQAHQICPV	0.1831	6896.5	16.00
IAS	584	LTESLQATIAAAQVA	ATIAAAQVA	0.1830	6905.0	16.00
IAS	136	VDDISTDVRRAPHAG	TDVRRAPHA	0.1820	6975.7	16.00
IAS	386	VTEDAERQIDSCDPT	RQIDSCDPT	0.1813	7031.2	16.00
IAS	509	NPLSVGAGLILGRMA	AGLILGRMA	0.1813	7032.5	16.00
IAS	138	DISTDVRRAPHAGGR	TDVRRAPHA	0.1812	7038.6	16.00
IAS	326	ELSVVNDPNLRDRLA	SVVNDPNLR	0.1806	7086.2	16.00
IAS	511	LSVGAGLILGRMAYK	AGLILGRMA	0.1805	7089.4	16.00
IAS	214	MWFVRQAHQICPVGA	RQAHQICPV	0.1799	7140.0	16.00
IAS	224	CPVGAVVATKTDLYP	VVATKTDLY	0.1797	7150.4	16.00
IAS	512	SVGAGLILGRMAYKE	AGLILGRMA	0.1795	7171.3	16.00
IAS	514	GAGLILGRMAYKEDK	AGLILGRMA	0.1793	7186.6	16.00
IAS	177	GVGGLGQPHLSATLG	GGLGQPHLS	0.1781	7276.5	16.00
IAS	225	PVGAVVATKTDLYPR	VVATKTDLY	0.1749	7534.7	16.00
IAS	137	DDISTDVRRAPHAGG	TDVRRAPHA	0.1744	7573.0	16.00
IAS	513	VGAGLILGRMAYKED	GAGLILGRM	0.1742	7590.5	16.00
IAS	589	QATIAAAQVAETERD	ATIAAAQVA	0.1737	7632.8	16.00
IAS	387	TEDAERQIDSCDPTA	RQIDSCDPT	0.1735	7648.0	16.00
IAS	585	TESLQATIAAAQVAE	ATIAAAQVA	0.1722	7757.0	16.00
IAS	327	LSVVNDPNLRDRLAS	SVVNDPNLR	0.1721	7766.2	16.00
IAS	178	VGGLGQPHLSATLGL	GGLGQPHLS	0.1720	7771.8	16.00
IAS	65	ITDPQVRVVIAGLLK	RVVIAGLLK	0.1712	7844.5	16.00
IAS	157	VEVGAPSPLLRGGLA	VEVGAPSPL	0.1706	7897.0	16.00
IAS	510	PLSVGAGLILGRMAY	AGLILGRMA	0.1705	7906.0	16.00
IAS	164	PLLRGGLAFIDTPGV	GGLAFIDTP	0.1671	8202.7	16.00
IAS	321	VSLGSELSVVNDPNL	SELSVVNDP	0.1661	8285.9	16.00
IAS	586	ESLQATIAAAQVAET	ATIAAAQVA	0.1652	8365.5	16.00
IAS	388	EDAERQIDSCDPTAH	RQIDSCDPT	0.1650	8387.7	16.00
IAS	391	ERQIDSCDPTAHWAE	RQIDSCDPT	0.1626	8607.4	16.00
IAS	516	GLILGRMAYKEDKQN	RMAYKEDKQ	0.1596	8894.0	32.00
IAS	392	RQIDSCDPTAHWAEI	RQIDSCDPT	0.1589	8959.2	32.00
IAS	390	AERQIDSCDPTAHWA	RQIDSCDPT	0.1585	8999.7	32.00
IAS	128	TTAAVDIPVDDISTD	TAAVDIPVD	0.1582	9029.5	32.00
IAS	66	TDPQVRVVIAGLLKQ	RVVIAGLLK	0.1561	9234.0	32.00
IAS	87	NSLLNLPAAARVGDE	NSLLNLPAA	0.1559	9255.8	32.00
IAS	21	DAVTQPDPRRVGVI	DTVTQPD	0.1555	9296.3	32.00
IAS	389	DTERTQIDSCDPTAHW	RQIDSCDPT	0.1554	9302.2	32.00
IAS	122	AAGPDGTTAAVDIPV	GTAAVDIP	0.1554	9309.1	32.00
IAS	129	TAAVDIPVDDISTDV	TAAVDIPVD	0.1548	9366.2	32.00
IAS	56	QRLTRARQRITDPQV	QRLTRARQR	0.1546	9383.7	32.00
IAS	150	GGREVLRVEVGAPSP	REVLRVEVG	0.1535	9495.2	32.00
IAS	215	WFVRQAHQICPVGAV	RQAHQICPV	0.1534	9506.8	32.00
IAS	12	RRKRARKWGDTVTQP	KWGDTVTQP	0.1527	9583.2	32.00

IAS	517	LILGRMAYKEDKQNR	RMAYKEDKQ	0.1515	9701.9	32.00
IAS	227	GAVVATKTDLYPRWR	VVATKTDLY	0.1500	9862.1	32.00
IAS	226	VGAVVATKTDLYPRW	VVATKTDLY	0.1499	9871.3	32.00
IAS	228	AVVATKTDLYPRWRE	VVATKTDLY	0.1490	9970.1	32.00
IAS	134	IPVDDISTDVRRAAPH	STDVRRAPH	0.1488	9996.4	32.00
IAS	31	RVGVIVELIDHTIAI	RVGVIVELI	0.1485	10023.6	32.00
IAS	28	DPRRVGVIVELIDHT	RVGVIVELI	0.1481	10071.6	32.00
IAS	13	RKRARKWGDVTQPD	KWGDVTQPD	0.1480	10079.3	32.00
IAS	29	PRRVGVIVELIDHTI	RVGVIVELI	0.1480	10083.2	32.00
IAS	590	ATIAAAQVAETERDN	ATIAAAQVA	0.1476	10125.8	32.00
IAS	67	DPQVRVVIAGLLKQG	RVVIAGLLK	0.1470	10194.1	32.00
IAS	30	RRVGVIVELIDHTIA	RVGVIVELI	0.1465	10245.8	32.00
IAS	284	NFPAIVKFLSEQVLS	KFLSEQVLS	0.1455	10354.5	32.00
IAS	209	FTEPEMWFVRQAHQI	WFVRQAHQI	0.1436	10577.5	32.00
IAS	346	RKREAQQAVQQTALW	QAVQQTALW	0.1429	10650.3	32.00
IAS	474	KPLRRGHKMIIGMRG	KPLRRGHKM	0.1423	10723.5	32.00
IAS	146	APHAGGREVLRVEVG	REVLREVEVG	0.1420	10755.9	32.00
IAS	121	LAAGPDGTTAAVDIP	GTAAVDIP	0.1407	10910.1	32.00
IAS	86	LNSLLNLPAARVGDD	NSLLNLPAA	0.1401	10981.5	32.00
IAS	347	KREAQQAVQQTALWQ	QAVQQTALW	0.1393	11072.3	32.00
IAS	289	VKFLSEQVLSRATER	KFLSEQVLS	0.1387	11150.5	32.00
IAS	467	ALGRMESKPLRRGHK	RMESKPLRR	0.1375	11297.9	32.00
IAS	186	LSATLGLLPEADAVL	LSATLGLLP	0.1362	11456.7	32.00
IAS	27	DDPRRVGVIVELIDH	RVGVIVELI	0.1360	11479.7	32.00
IAS	185	HLSATLGLLPEADAV	LSATLGLLP	0.1358	11504.8	32.00
IAS	69	QVRVVIAGLLKQGKS	QVRVVIAGL	0.1357	11517.2	32.00
IAS	183	QPHLSATLGLLPEAD	LSATLGLLP	0.1354	11549.5	32.00
IAS	254	ARVPMPIIAVSSLLR	ARVPMPIIA	0.1344	11676.2	32.00
IAS	489	SYGGVVMIGMLSSVV	GGVVMIGML	0.1334	11801.9	32.00
IAS	210	TEPEMWFVRQAHQIC	WFVRQAHQI	0.1332	11830.5	32.00
IAS	466	KALGRMESKPLRRGH	KALGRMESK	0.1329	11871.6	32.00
IAS	64	RITDPQVRVVIAGLL	VRVVIAGLL	0.1328	11880.9	32.00
IAS	242	EIVNANAHLQRARV	VNANAHLQ	0.1318	12008.9	32.00
IAS	184	PHLSATLGLLPEADA	LSATLGLLP	0.1317	12031.3	32.00
IAS	328	SVVNDPNLRDRLASD	SVVNDPNLR	0.1313	12079.1	32.00
IAS	238	PRWREIVNANAHLQ	VNANAHLQ	0.1312	12092.8	32.00
IAS	485	GGVVMIGMLSSVV	GGVVMIGML	0.1308	12139.6	32.00
IAS	211	EPPEMWFVRQAHQICP	WFVRQAHQI	0.1307	12159.4	32.00
IAS	81	GKSQLLNSLLNLPAA	NSLLNLPAA	0.1307	12160.7	32.00
IAS	285	FPAIVKFLSEQVLSR	KFLSEQVLS	0.1298	12271.5	32.00
IAS	486	MRSYGGVVMIGMLS	GGVVMIGML	0.1283	12471.1	32.00
IAS	158	EVGAPSPLLRGGLAF	VGAPSPLLR	0.1283	12473.5	32.00
IAS	181	LGQPHLSATLGLLPE	LSATLGLLP	0.1281	12508.7	32.00
IAS	217	VRQAHQICPVGAVVA	RQAHQICPV	0.1280	12520.6	32.00
IAS	147	PHAGGREVLRVEVGA	REVLREVEVG	0.1275	12583.3	32.00
IAS	111	YSAQPSARLVLAAGP	ARLVLAAGP	0.1275	12585.9	32.00
IAS	490	YGGVVMIGMLSSVVG	GGVVMIGML	0.1270	12656.2	32.00
IAS	465	LKALGRMESKPLRRG	KALGRMESK	0.1269	12665.5	32.00
IAS	68	PQVRVVIAGLLKQGK	RVVIAGLLK	0.1268	12677.5	32.00
IAS	55	VQRLTRARQRITDPQ	QRLTRARQR	0.1266	12714.3	32.00
IAS	508	FNPLSVGAGLILGRM	GAGLILGRM	0.1264	12731.2	32.00
IAS	26	PDDPRRVGVIVELID	RVGVIVELI	0.1259	12811.5	32.00
IAS	290	KFLSEQVLSRATERV	KFLSEQVLS	0.1251	12917.4	32.00
IAS	216	FVRQAHQICPVGAVV	RQAHQICPV	0.1251	12917.6	32.00
IAS	348	REAQQAVQQTALWQQ	QAVQQTALW	0.1250	12936.2	32.00
IAS	320	AVSLGSELSVVNDPN	SELSVVNDP	0.1248	12955.1	32.00
IAS	148	HAGGREVLRVEVGAP	REVLREVEVG	0.1248	12957.0	32.00
IAS	239	RWREIVNANAHLQR	REIVNANAA	0.1248	12957.6	32.00
IAS	487	RGSYGGVVMIGMLSS	GGVVMIGML	0.1240	13073.4	32.00
IAS	229	VVATKTDLYPRWREI	VVATKTDLY	0.1234	13153.5	32.00
IAS	240	WREIVNANAHLQRA	REIVNANAA	0.1234	13156.5	32.00
IAS	25	QPDDPRRVGVIVELI	RVGVIVELI	0.1231	13201.7	32.00
IAS	70	RVVIAGLLKQGKSQ	RVVIAGLLK	0.1229	13230.5	32.00
IAS	299	RATERVRAGVLGEIR	RAGVLGEIR	0.1228	13239.3	32.00
IAS	241	REIVNANAHLQRAR	REIVNANAA	0.1217	13397.1	32.00
IAS	350	AQQAVQQTALWQQVL	QAVQQTALW	0.1213	13464.1	32.00
IAS	286	PAIVKFLSEQVLSRA	KFLSEQVLS	0.1209	13509.8	32.00
IAS	88	SLLNLPAARVGDDEA	LPAARVGDD	0.1209	13520.7	32.00
IAS	488	GSYGGVVMIGMLSSV	GGVVMIGML	0.1208	13534.8	32.00
IAS	432	LADDVARSFADAGLD	RSFADAGLD	0.1207	13551.2	32.00

IAs	464	RLKALGRMESKPLRR	KALGRMESK	0.1202	13621.6	32.00
IAs	41	HTIAIAKLNERGDLV	HTIAIAKLN	0.1201	13634.5	32.00
IAs	182	GQPHLSATLGLLPEA	LSATLGLLP	0.1195	13724.2	32.00
IAs	592	IAGAAQVAETERDNR	AAAQVAETE	0.1165	14178.0	32.00
IAs	519	LGRMAYKEDKQNRLL	RMAYKEDKQ	0.1164	14192.3	32.00
IAs	288	IVKFLSEQVLSRATE	KFLSEQVLS	0.1164	14192.4	32.00
IAs	518	ILGRMAYKEDKQNR	RMAYKEDKQ	0.1156	14311.8	32.00
IAs	90	LNLPAARVGDDEATV	LPAARVGDD	0.1152	14374.6	32.00
IAs	218	RQAHQICPVGAVVAT	RQAHQICPV	0.1150	14410.1	32.00
IAs	300	ATERVRAGVLGEIRS	RAGVLGEIR	0.1144	14496.0	32.00
IAs	498	MLSSVVLGGLFNPLS	VGLGLFNPL	0.1140	14566.3	32.00
IAs	349	EAQQAVQQTALWQQV	QAVQQTALW	0.1137	14606.2	32.00
IAs	149	AGGREVLRVEVGAPS	REVL RVEVG	0.1128	14746.9	32.00
IAs	520	GRMAYKEDKQNRLLR	RMAYKEDKQ	0.1128	14761.9	32.00
IAs	342	DLERRKREAQQAVQQ	REAQQAVQQ	0.1126	14783.8	32.00
IAs	89	LLNLPAARVGDDEAT	LPAARVGDD	0.1125	14810.2	32.00
IAs	301	TERVRAGVLGEIRSA	RAGVLGEIR	0.1124	14815.0	32.00
IAs	37	ELIDHTIAIAKLNER	HTIAIAKLN	0.1123	14832.0	32.00
IAs	433	ADDVARSFADAGLDS	RSFADAGLD	0.1123	14840.9	32.00
IAs	40	DHTIAIAKLNERGDL	HTIAIAKLN	0.1120	14883.6	32.00
IAs	222	QICPVGAVVATKTDL	AVVATKTDL	0.1119	14893.9	32.00
IAs	287	AIVKFLSEQVLSRAT	KFLSEQVLS	0.1113	14999.9	32.00
IAs	591	TIAAAQVAETERDNR	AAAQVAETE	0.1108	15070.6	50.00
IAs	319	LAVSLGSELSVVNDP	SELSVVNDP	0.1103	15161.9	50.00
IAs	50	ERGDLVQRLTRARQR	QRLTRARQR	0.1097	15263.3	50.00
IAs	500	SSVVGLGGLFNPLSVG	VVGLGGLFNP	0.1088	15410.0	50.00
IAs	499	LSSVVGLGGLFNPLSV	VGLGGLFNPL	0.1085	15460.1	50.00
IAs	104	VVITVVSYSQAQPSAR	SYSQAQPSAR	0.1074	15636.9	50.00
IAs	302	ERVRAGVLGEIRSAT	RAGVLGEIR	0.1069	15729.7	50.00
IAs	463	GRLKALGRMESKPLR	KALGRMESK	0.1066	15784.8	50.00
IAs	502	VVGLGGLFNPLSVGAG	VGLGGLFNPL	0.1064	15805.6	50.00
IAs	497	GMLSSVVGLGGLFNPL	VGLGGLFNPL	0.1064	15814.7	50.00
IAs	39	IDHTIAIAKLNERGD	HTIAIAKLN	0.1063	15833.4	50.00
IAs	38	LIDHTIAIAKLNERG	HTIAIAKLN	0.1059	15891.2	50.00
IAs	163	SPLLRGGLAFIDTPG	GGLAFIDTP	0.1058	15911.3	50.00
IAs	539	AKANVRRFVDDISFV	RFVDDISFV	0.1052	16019.3	50.00
IAs	54	LVQRLTRARQRITDP	QRLTRARQR	0.1050	16059.2	50.00
IAs	304	VRAGVLGEIRSATEQ	RAGVLGEIR	0.1043	16175.3	50.00
IAs	434	DDVARSFADAGLDSV	RSFADAGLD	0.1039	16251.6	50.00
IAs	343	LERRKREAQQAVQQT	REAQQAVQQ	0.1035	16314.5	50.00
IAs	187	SATLGLLPEADAVLV	SATLGLLPE	0.1034	16336.4	50.00
IAs	73	VIAGLLKQKGSQLLN	KQKGSQLLN	0.1034	16337.3	50.00
IAs	501	SVTLGGLFNPLSVGA	VGLGGLFNPL	0.1029	16414.2	50.00
IAs	583	LQATIAAAQV	QATIAAAQV	0.1023	16528.8	50.00
IAs	436	VARSFADAGLDSVLS	RSFADAGLD	0.1017	16632.2	50.00
IAs	36	VELIDHTIAIAKLNE	HTIAIAKLN	0.1011	16747.7	50.00
IAs	105	VITVVSYSQAQPSARL	SYSQAQPSAR	0.1010	16771.1	50.00
IAs	303	RVRAGVLGEIRSATE	RAGVLGEIR	0.1009	16773.8	50.00
IAs	593	AAAQVAETERDNRIR	AAAQVAETE	0.1009	16776.2	50.00
IAs	107	TVVSYSQAQPSARLV	TVVSYSQAP	0.1008	16805.3	50.00
IAs	462	FGRLKALGRMESKPL	KALGRMESK	0.1004	16879.3	50.00
IAs	79	KQKGSQLLNSLLNLP	GKSQLLNSL	0.1004	16881.6	50.00
IAs	106	ITVVSYSQAQPSARLV	SYSQAQPSAR	0.1002	16901.0	50.00
IAs	237	YPRWREIVNANAHL	REIVNANAA	0.1002	16908.3	50.00
IAs	159	VGAPSPLLRGGLAFI	SPLLRGGLA	0.1000	16941.1	50.00
IAs	345	RRKREAQQAVQQTAL	REAQQAVQQ	0.0999	16973.0	50.00
IAs	179	GGLGQPHLSATLGLL	GGLGQPHLS	0.0995	17033.7	50.00
IAs	108	VVSYSQAQPSARLVLA	SYSQAQPSAR	0.0995	17039.1	50.00
IAs	621	DNLAGLEPTLTTPRAS	EPTLTTPRAS	0.0989	17151.4	50.00
IAs	71	RVVIAGLLKQKGSQL	RVVIAGLLK	0.0987	17191.5	50.00
IAs	460	TDFGRLKALGRMESK	KALGRMESK	0.0987	17193.0	50.00
IAs	268	RRSHAVTLNDKELNEE	HAVTLNDKE	0.0978	17360.6	50.00
IAs	266	LSHSHAVTLNDKELN	VTLNDKELN	0.0969	17517.8	50.00
IAs	344	ERRKREAQQAVQQT	REAQQAVQQ	0.0966	17587.7	50.00
IAs	435	DVARSFADAGLDSVL	RSFADAGLD	0.0964	17615.7	50.00
IAs	162	PSPLLRGGLAFIDTP	GGLAFIDTP	0.0959	17706.1	50.00
IAs	80	QKGSQLLNSLLNLPA	GKSQLLNSL	0.0958	17731.0	50.00
IAs	103	TVVITVVSYSQAQPSA	VVSYSQAQPS	0.0957	17762.9	50.00
IAs	351	QQAVQQTALWQQVVG	QAVQQTALW	0.0955	17791.7	50.00
IAs	130	AAVDIPVDDISTDVR	AAVDIPVDD	0.0948	17934.0	50.00

IAS	267	LRSHAVTLNDKELNE	VTLNDKELN	0.0947	17941.7	50.00
IAS	35	IVELIDHTIAIAKLN	HTIAIAKLN	0.0946	17972.8	50.00
IAS	540	KANVRRFVDDISFVV	RFVDDISFV	0.0944	17996.8	50.00
IAS	256	VPMPPIIAVSSLLRSH	MPIIAVSSL	0.0941	18061.5	50.00
IAS	271	AVTLNDKELNEESNF	KELNEESNF	0.0931	18261.0	50.00
IAS	437	ARSFADAGLDSVLSA	RSFADAGLD	0.0931	18262.8	50.00
IAS	92	LPAARVGDDEATVVI	LPAARVGDD	0.0926	18360.0	50.00
IAS	200	LVVSDTSQEFTEPEM	LVVSDTSQE	0.0926	18364.0	50.00
IAS	51	RGDLVQRLTRARQRI	QRLTRARQR	0.0924	18393.2	50.00
IAS	461	DFGRLKALGRMESKP	KALGRMESK	0.0922	18438.3	50.00
IAS	208	EFTEPEMWFVRQAHQ	MWFVRQAHQ	0.0908	18728.4	50.00
IAS	410	VENAIATAVGDNFVW	IATAVGDNF	0.0906	18767.8	50.00
IAS	255	RVPMPPIIAVSSLLRS	MPIIAVSSL	0.0901	18855.5	50.00
IAS	8	YRDLRRKRARKWGDT	RDLRRKRAR	0.0900	18875.9	50.00
IAS	557	QSRDRLKMIQRLLRD	KMIQRLLRD	0.0900	18890.2	50.00
IAS	352	QAVQQTALWQQVLGD	QAVQQTALW	0.0899	18902.1	50.00
IAS	102	ATVVITVVSYSQAQS	VVSYSQAQS	0.0899	18910.7	50.00
IAS	269	SHAVTLNDKELNEES	HAVTLNDKE	0.0897	18941.8	50.00
IAS	445	LDSVLSAELSPHVMG	VLSAELSPH	0.0890	19084.7	50.00
IAS	91	NLPAARVGDDEATVV	LPAARVGDD	0.0886	19176.2	50.00
IAS	42	TIAIAKLNERNRGLVQ	KLNERGDLV	0.0884	19206.8	50.00
IAS	221	HQICPVGAVVATKTD	PVGAVVATK	0.0884	19212.8	50.00
IAS	521	RMAYKEDKQNRLLRV	RMAYKEDKQ	0.0883	19240.7	50.00
IAS	9	RDLRRKRARKWGDTV	RDLRRKRAR	0.0882	19257.9	50.00
IAS	265	SLLRSHAVTLNDKEL	HAVTLNDKE	0.0875	19399.1	50.00
IAS	496	IGMLSSVVGLGLFNP	VVGLGLFNP	0.0874	19413.8	50.00
IAS	409	DVENAIATAVGDNFV	IATAVGDNF	0.0865	19622.0	50.00
IAS	109	VSYSAQPSARLVLAA	SYSAQPSAR	0.0864	19637.8	50.00
IAS	545	RFVDDISFVVSKQSR	SFVVSKQSR	0.0863	19653.3	50.00
IAS	296	TVSRATERVRAGVLG	ERVVRAGVLG	0.0863	19660.1	50.00
IAS	141	TDVRRAPHAGGREVL	TDVRRAPHA	0.0858	19750.5	50.00
IAS	491	GGVVMIGMLSSVVGL	GGVVMIGML	0.0855	19830.8	50.00
IAS	448	VLSAELSPHVMGTDF	VLSAELSPH	0.0852	19884.7	50.00
IAS	408	NDVENAIATAVGDNF	IATAVGDNF	0.0852	19893.3	50.00
IAS	220	AHQICPVGAVVATKT	VGAVVATKT	0.0851	19915.1	50.00
IAS	484	IGMRSYGGVVMIGM	YGGVVMIGM	0.0849	19961.9	50.00
IAS	119	LVLAAAGPDGTTAAVD	GPDGTTAAV	0.0845	20045.4	50.00
IAS	446	DSVLSAELSPHVMGT	VLSAELSPH	0.0844	20065.2	50.00
IAS	447	SVLSAELSPHVMGTD	VLSAELSPH	0.0842	20098.2	50.00
IAS	43	IAIAKLNERNRGLVQR	KLNERGDLV	0.0842	20111.5	50.00
IAS	305	RAGVLGEIRSATEQL	RAGVLGEIR	0.0833	20294.0	50.00
IAS	444	GLDSVLSAELSPHVM	SAELSPHVM	0.0832	20322.3	50.00
IAS	3	AGLCAYRDLRRKRAR	RDLRRKRAR	0.0830	20368.6	50.00
IAS	438	RSFADAGLDSVLSAE	RSFADAGLD	0.0826	20459.3	50.00
IAS	32	VGIVELIDHTIAIA	VIVELIDHT	0.0824	20498.6	50.00
IAS	52	GDLVQRLTRARQRIT	QRLTRARQR	0.0822	20546.3	50.00
IAS	541	ANVRRFVDDISFVVS	RFVDDISFV	0.0814	20715.3	50.00
IAS	33	GVIVELIDHTIAIAK	VIVELIDHT	0.0814	20728.7	50.00
IAS	298	SRATERVRAGVLGEI	ERVVRAGVLG	0.0813	20752.7	50.00
IAS	558	SRDRLKMIQRLLRDH	KMIQRLLRD	0.0809	20830.6	50.00
IAS	264	SSLLRSHAVTLNDKE	HAVTLNDKE	0.0805	20933.6	50.00
IAS	145	RAPHAGGREVLRVEV	RAPHAGGRE	0.0804	20957.9	50.00
IAS	622	NLAGLEPTLTPRASL	EPTLTPRAS	0.0803	20963.1	50.00
IAS	101	EATVVITVVSYSQAP	TVVSYSQAP	0.0803	20978.3	50.00
IAS	120	VLAAGPDGTTAAVDI	VLAAGPDGT	0.0802	21003.7	50.00
IAS	297	LSRATERVRAGVLGE	ERVVRAGVLG	0.0799	21060.6	50.00
IAS	283	SNFPAIVKFLSEQVL	VKFLSEQVL	0.0799	21062.4	50.00
IAS	530	NRLLRVRSEAKANVR	RSEAKANVR	0.0799	21072.4	50.00
IAS	110	SYSAQPSARLVLAAG	SYSAQPSAR	0.0796	21127.9	50.00
IAS	74	IAGLLKQGKSQLLNS	IAGLLKQGK	0.0796	21134.8	50.00
IAS	292	LSEQVLSRATERVRA	QVLSRATER	0.0787	21337.4	50.00
IAS	161	APSPLLRGGLAFIDT	SPLLRGGLA	0.0784	21412.1	50.00
IAS	378	DLRTRFRVTEDAER	RTVTEDAER	0.0781	21477.3	50.00
IAS	619	VNDNLAGLEPTLTPR	AGLEPTLTP	0.0781	21481.3	50.00
IAS	291	FLSEQVLSRATERVR	QVLSRATER	0.0779	21523.2	50.00
IAS	618	QVNDNLAGLEPTLTP	AGLEPTLTP	0.0768	21769.8	50.00
IAS	180	GLGQPHLSATLGLLP	LSATLGLLP	0.0768	21769.8	50.00
IAS	235	DLYPRWREIVNANAA	REIVNANAA	0.0760	21975.2	50.00
IAS	617	SQVNDNLAGLEPTLT	LAGLEPTLT	0.0756	22056.9	50.00
IAS	379	LRTFRFRVTEDAERQ	RTVTEDAER	0.0751	22185.2	50.00

IAs	72	VVIAGLLKQGKSQLL	AGLLKQGKS	0.0746	22313.0	50.00
IAs	542	NVRRFVDDISFVVS	RFVDDISFV	0.0744	22358.7	50.00
IAs	544	RRFVDDISFVVSQ	RFVDDISFV	0.0743	22369.6	50.00
IAs	495	MIGMLSSVVGLGLFN	SSVVGLGLF	0.0743	22374.9	50.00
IAs	576	IAEEITRSLTESLQA	RSLTESLQA	0.0743	22389.9	50.00
IAs	258	MPIIAVSSLLRSHAV	MPIIAVSSL	0.0742	22412.2	50.00
IAs	53	DLVQRLTRARQRITD	QRLTRARQR	0.0740	22449.8	50.00
IAs	559	RDRLKMIQRLLRDHY	KMIQRLLRD	0.0739	22476.3	50.00
IAs	272	VTLNKELNEESNFP	KELNEESNF	0.0735	22583.8	50.00
IAs	442	DAGLDSVLSAELSPH	VLSAELSPH	0.0734	22604.6	50.00
IAs	623	LADLEPTLTPRASLG	EPTLTPRAS	0.0734	22609.3	50.00
IAs	443	AGLDSVLSAELSPHV	VLSAELSPH	0.0729	22711.0	50.00
IAs	219	QAHQICPVGAVVATK	PVGAVVATK	0.0728	22752.8	50.00
IAs	620	NDNLAGLEPTLTPRA	AGLEPTLTP	0.0724	22840.9	50.00
IAs	98	GDDEATVVITVVSYS	VVITVVSYS	0.0723	22861.6	50.00
IAs	380	RTRFRTVTEDAERQI	RTVTEDAER	0.0715	23055.2	50.00
IAs	236	LYPRWREIVNANAHA	REIVNANAHA	0.0712	23151.4	50.00
IAs	494	VMIGMLSSVVGLGLF	SSVVGLGLF	0.0702	23384.8	50.00
IAs	99	DDEATVVITVVSYS	VVITVVSYS	0.0702	23396.9	50.00
IAs	561	RLKMIQRLLRDHYRE	KMIQRLLRD	0.0702	23403.0	50.00
IAs	100	DEATVVITVVSYS	VVITVVSYS	0.0701	23423.0	50.00
IAs	131	AVDIPVDDISTDVR	VDIPVDDIS	0.0701	23431.4	50.00
IAs	11	LRRKRARKWGDVTQ	KRARKWGD	0.0700	23434.7	50.00
IAs	257	MPIIAVSSLLRSHA	MPIIAVSSL	0.0694	23587.6	50.00
IAs	625	GLEPTLTPRASLGRA	EPTLTPRAS	0.0692	23638.9	50.00
IAs	160	GAPSPLLRGGLAFID	SPLLRGGLA	0.0691	23677.6	50.00
IAs	46	AKLNERGDLVQRLTR	KLNERGDLV	0.0691	23686.3	50.00
IAs	407	GNDVENAIATAVGD	AIATAVGD	0.0690	23697.8	50.00
IAs	562	LKMIQRLLRDHYREI	KMIQRLLRD	0.0686	23803.9	50.00
IAs	45	IAKLNERGDLVQRLT	KLNERGDLV	0.0686	23808.6	50.00
IAs	270	HAVTLNPKELNEESN	HAVTLNPK	0.0684	23848.0	50.00
IAs	531	RLLRVRSEAKANVRR	RSEAKANVR	0.0684	23851.6	50.00
IAs	230	VATKTDLYPRWREIV	KTDLYPRWR	0.0683	23880.3	50.00
IAs	188	ATLGLLPEADAVLVV	ATLGLLPEA	0.0680	23951.2	50.00
IAs	4	GLCAYRDLRRKRARK	RDLRRKRAR	0.0675	24087.4	50.00
IAs	274	LNDKELNEESNFP	KELNEESNF	0.0674	24113.5	50.00
IAs	610	QQLGILSQQVNDNLA	RQLGILSQQ	0.0674	24118.9	50.00
IAs	313	RSATEQLAVSLGSEL	LAVSLGSEL	0.0674	24123.9	50.00
IAs	381	TRFRTVTEDAERQID	RTVTEDAER	0.0673	24133.8	50.00
IAs	606	IRELQRQLGILSQQV	RQLGILSQQ	0.0672	24163.6	50.00
IAs	607	RELQRQLGILSQQV	RQLGILSQQ	0.0671	24200.0	50.00
IAs	560	DRLKMIQRLLRDHYR	KMIQRLLRD	0.0669	24249.5	50.00
IAs	543	VRRFVDDISFVVSQ	RFVDDISFV	0.0668	24277.6	50.00
IAs	577	AEIEITRSLTESLQA	RSLTESLQA	0.0666	24322.0	50.00
IAs	44	AIAKLNERGDLVQRL	KLNERGDLV	0.0666	24327.8	50.00
IAs	396	SCDPTAHWAEIGNDV	AHWAEIGND	0.0666	24333.9	50.00
IAs	277	KELNEESNFP	KELNEESNF	0.0665	24344.7	50.00
IAs	582	RSLTESLQATIAAAQ	RSLTESLQA	0.0662	24420.4	50.00
IAs	525	KEDKQNRLLRVRSEA	RLLRVRSEA	0.0662	24434.7	50.00
IAs	75	AGLLKQGKSQLLNSL	GKSQLLNSL	0.0659	24496.1	50.00
IAs	563	KMIQRLLRDHYREIA	KMIQRLLRD	0.0657	24567.7	50.00
IAs	605	RIRELQRQLGILSQQV	RQLGILSQQ	0.0656	24575.4	50.00
IAs	10	DLRRKRARKWGDVT	KRARKWGD	0.0656	24592.2	50.00
IAs	535	VRSEAKANVRRFVDD	RSEAKANVR	0.0651	24725.3	50.00
IAs	609	LQRQLGILSQQVNDNL	RQLGILSQQ	0.0651	24729.6	50.00
IAs	608	ELQRQLGILSQQVNDN	RQLGILSQQ	0.0649	24765.2	50.00
IAs	382	RFRTVTEDAERQIDS	RTVTEDAER	0.0649	24777.6	50.00
IAs	275	NDKELNEESNFP	KELNEESNF	0.0649	24777.6	50.00
IAs	332	DPNLRDRLASDLERR	RLASDLERR	0.0648	24811.1	50.00
IAs	624	AGLEPTLTPRASLGR	EPTLTPRAS	0.0647	24827.2	50.00
IAs	581	TRSLTESLQATIAAAA	RSLTESLQA	0.0646	24844.7	50.00
IAs	7	AYRDLRRKRARKWGD	RDLRRKRAR	0.0644	24902.5	50.00
IAs	395	SCDPTAHWAEIGND	AHWAEIGND	0.0640	25013.8	50.00
IAs	24	TQPDDPRRVGVIVEL	RRVGVIVEL	0.0640	25022.5	50.00
IAs	273	TLNDKELNEESNFP	KELNEESNF	0.0640	25023.8	50.00
IAs	144	RRAPHAGGREVLRVE	RAPHAGGRE	0.0638	25063.6	50.00
IAs	526	EDKQNRLLRVRSEAK	KQNRLLRVR	0.0638	25078.6	50.00
IAs	295	QVLSRATERVRAGVL	QVLSRATER	0.0638	25078.6	50.00
IAs	312	IRSATEQLAVSLGSE	QLAVSLGSE	0.0636	25125.0	50.00
IAs	527	DKQNRLLRVRSEAKA	KQNRLLRVR	0.0632	25225.0	50.00

IAS	528	KQNRLLRVRSEAKAN	KQNRLLRVR	0.0632	25234.2	50.00
IAS	611	RQLGILSQVNDNLAG	RQLGILSQV	0.0631	25263.2	50.00
IAS	5	LCAYRDLRRKRARKW	RDLRRKRAR	0.0627	25369.5	50.00
IAS	546	FVDDISFVVSQSRD	SFVVSQSR	0.0625	25424.4	50.00
IAS	550	ISFVVSQSRDRLKM	SFVVSQSR	0.0625	25435.5	50.00
IAS	276	DKELNEESNFPATVK	KELNEESNF	0.0624	25452.8	50.00
IAS	536	RSEAKANVRRFVDDI	RSEAKANVR	0.0622	25506.3	50.00
IAS	78	LKQGKSQLLNSLLNL	KQGKSQLLN	0.0621	25525.6	50.00
IAS	1	VPAGLCAYRDLRRKR	AGLCAYRDL	0.0620	25561.0	50.00
IAS	398	DPTAHWAEIGNDVEN	AHWAEIGND	0.0619	25594.5	50.00
IAS	449	LSAELSPHVMGTDFG	LSAELSPHV	0.0617	25639.9	50.00
IAS	397	CDPTAHWAEIGNDVE	AHWAEIGND	0.0617	25650.2	50.00
IAS	578	EETRSLTESLQATI	RSLTESLQA	0.0613	25752.5	50.00
IAS	534	RVRSEAKANVRRFVD	RSEAKANVR	0.0613	25768.1	50.00
IAS	0	MVPAGLCAYRDLRRK	AGLCAYRDL	0.0610	25842.1	50.00
IAS	503	VGLGLFNPLSVGAGL	VGLGLFNPL	0.0610	25851.4	50.00
IAS	393	QIDSCDPTAHWAEIG	PTAHWAEIG	0.0609	25874.3	50.00
IAS	143	VRRAPHAGGREVLRV	RAPHAGGRE	0.0606	25957.0	50.00
IAS	293	SEQVLSRATERVRAG	QVLSRATER	0.0603	26033.5	50.00
IAS	475	PLRRGHKMIIGMRGS	RRGHKMIIG	0.0602	26075.5	50.00
IAS	481	KMIIGMRGSYGGVVM	KMIIGMRGS	0.0602	26075.8	50.00
IAS	547	VDDISFVVSQSRDR	SFVVSQSR	0.0598	26177.8	50.00
IAS	263	VSSLLRSHAVTLNDK	SHAVTLNDK	0.0597	26202.5	50.00
IAS	194	PEADAVLVSDTSQE	LVVSDTSQE	0.0595	26263.2	50.00
IAS	477	RRGHKMIIGMRGSYG	RRGHKMIIG	0.0595	26267.2	50.00
IAS	231	ATKTDLYPRWREIVN	ATKTDLYPR	0.0593	26316.7	50.00
IAS	532	LLRVRSEAKANVRRF	RSEAKANVR	0.0591	26368.6	50.00
IAS	318	QLAVSLGSELSVND	LAVSLGSEL	0.0591	26373.7	50.00
IAS	314	SATEQLAVSLGSELS	LAVSLGSEL	0.0591	26382.3	50.00
IAS	476	LRGHKMIIGMRGSY	RRGHKMIIG	0.0591	26386.6	50.00
IAS	316	TEQLAVSLGSELSV	LAVSLGSEL	0.0590	26408.0	50.00
IAS	427	QRSEALADDVARSA	QRSEALADD	0.0590	26408.3	50.00
IAS	492	GVVMIGMLSSVVGGL	MLSSVVGGL	0.0589	26433.4	50.00
IAS	580	ITRSLTESLQATIAA	RSLTESLQA	0.0588	26469.5	50.00
IAS	6	CAYRDLRRKRARKWG	RDLRRKRAR	0.0583	26603.6	50.00
IAS	533	LRVRSEAKANVRRFV	RSEAKANVR	0.0583	26604.4	50.00
IAS	196	ADAVLVVSDTSQEFT	LVVSDTSQE	0.0580	26686.0	50.00
IAS	450	SAELSPHVMGTDFGR	SPHVMGTDF	0.0579	26711.2	50.00
IAS	413	AIATAVGDNFVWAYQ	AIATAVGDN	0.0579	26711.5	50.00
IAS	548	DDISFVVSQSRDRL	SFVVSQSR	0.0579	26717.5	50.00
IAS	195	EADAVLVVSDTSQEF	LVVSDTSQE	0.0579	26719.6	50.00
IAS	549	DISFVVSQSRDRRLK	SFVVSQSR	0.0579	26729.7	50.00
IAS	142	DVRAPHAGGREVLR	RAPHAGGRE	0.0579	26733.7	50.00
IAS	616	LSQVNDNLAGLEPTL	NLAGLEPTL	0.0576	26818.0	50.00
IAS	522	MAYKEDKQNRLLRVR	KQNRLLRVR	0.0573	26888.3	50.00
IAS	2	PAGLCAYRDLRRKRA	AGLCAYRDL	0.0571	26968.7	50.00
IAS	579	EITRSLTESLQATIA	RSLTESLQA	0.0570	26986.9	50.00
IAS	426	YQRSEALADDVARSF	QRSEALADD	0.0569	27010.2	50.00
IAS	354	VQQTALWQQVLGDGF	QQTALWQQV	0.0568	27042.7	50.00
IAS	353	AVQQTALWQQVLGDG	QQTALWQQV	0.0568	27055.8	50.00
IAS	76	GLLKQGKSQLLNSLL	GKSQLLNSL	0.0566	27098.9	50.00
IAS	451	AELSPHVMGTDFGRL	AELSPHVMG	0.0565	27137.4	50.00
IAS	333	PNLRDRLASDLERRK	RLASDLERR	0.0564	27157.3	50.00
IAS	341	SDLERRKREAQQAVQ	KREAQQAVQ	0.0564	27159.7	50.00
IAS	493	VVMIGMLSSVVGGLL	IGMLSSVVG	0.0561	27245.3	50.00
IAS	505	LGLFNPLSVGAGLIL	LSVGAGLIL	0.0560	27264.2	50.00
IAS	415	IATAVGDNFVWAYQRS	NFVWAYQRS	0.0558	27337.5	50.00
IAS	394	IDSCDPTAHWAEIGN	PTAHWAEIG	0.0554	27449.8	50.00
IAS	568	LLRDHYREIAEEITR	REIAEEITR	0.0553	27486.9	50.00
IAS	355	QQTALWQQVLGDGFN	QQTALWQQV	0.0550	27581.1	50.00
IAS	294	EQVLSRATERVRAGV	QVLSRATER	0.0549	27593.3	50.00
IAS	315	ATEQLAVSLGSELSV	LAVSLGSEL	0.0548	27625.0	50.00
IAS	77	LLKQGKSQLLNSLLN	GKSQLLNSL	0.0548	27644.7	50.00
IAS	334	NLRDRLASDLERRKR	RLASDLERR	0.0547	27659.1	50.00
IAS	569	LRDHYREIAEEITRS	REIAEEITR	0.0546	27682.7	50.00
IAS	411	ENAIATAVGDNFVWA	IATAVGDNF	0.0546	27689.0	50.00
IAS	317	EQLAVSLGSELSVVN	QLAVSLGSE	0.0543	27800.1	50.00
IAS	524	YKEDKQNRLLRVRSE	KQNRLLRVR	0.0542	27830.5	50.00
IAS	307	GVLGEIRSATEQLAV	RSATEQLAV	0.0539	27918.2	50.00
IAS	424	WAYQRSEALADDVAR	QRSEALADD	0.0538	27945.5	50.00

IAS	412	NAIATAVGDNFVWAY	AIATAVGDN	0.0536	27996.6	50.00
IAS	335	LRDRLASDLERRKRE	RLASDLERR	0.0534	28068.2	50.00
IAS	423	VWAYQRSEALADDVA	QRSEALADD	0.0532	28108.6	50.00
IAS	507	LNFPLSVGAGLILGR	LSVGAGLIL	0.0531	28163.4	50.00
IAS	414	IATAVGDNFVWAYQR	IATAVGDNF	0.0529	28207.9	50.00
IAS	47	KLNERGDLVQRLTRA	KLNERGDLV	0.0526	28311.3	50.00
IAS	416	TAVGDNFVWAYQRSE	NFVWAYQRS	0.0525	28340.4	50.00
IAS	383	FRTVTEDAERQIDSC	RTVTEDAER	0.0525	28346.2	50.00
IAS	506	GLFNPLSVGAGLILG	LSVGAGLIL	0.0522	28417.1	50.00
IAS	572	HYREIAEEITRSLTE	REIAEEITR	0.0521	28442.1	50.00
IAS	192	LLPEADAVLVVSDTS	AVLVVSDTS	0.0519	28518.2	50.00
IAS	425	AYQRSEALADDVARS	QRSEALADD	0.0518	28542.3	50.00
IAS	193	LPEADAVLVVSDTSQ	AVLVVSDTS	0.0516	28594.2	50.00
IAS	259	PIIAVSSLLRSHAVT	PIIAVSSLL	0.0514	28680.6	50.00
IAS	309	LGEIRSATEQLAVSL	RSATEQLAV	0.0513	28707.0	50.00
IAS	310	GEIRSATEQLAVSLG	GEIRSATEQ	0.0513	28715.4	50.00
IAS	440	FADAGLDSVLSAELS	DSVLSAELS	0.0513	28715.7	50.00
IAS	281	EESNFPAIVKFLSEQ	PAIVKFLSE	0.0512	28722.9	50.00
IAS	338	RLASDLERRKREAQQ	RLASDLERR	0.0511	28752.4	50.00
IAS	406	IGNDVENAIATAVGD	NAIATAVGD	0.0511	28757.4	50.00
IAS	34	VIVELIDHTIAIAKL	VIVELIDHT	0.0511	28768.0	50.00
IAS	523	AYKEDKQNRLLRVRS	KQNRLLRVR	0.0510	28803.1	50.00
IAS	336	RDRLASDLERRKREA	RLASDLERR	0.0509	28825.0	50.00
IAS	280	NEESNFPAIVKFLSE	SNFPAIVKF	0.0508	28855.2	50.00
IAS	570	RDHYREIAEEITRSL	REIAEEITR	0.0508	28865.2	50.00
IAS	308	VLGEIRSATEQLAVS	RSATEQLAV	0.0506	28916.5	50.00
IAS	453	LSPHVMGTDFGRLKA	SPHVMGTDF	0.0504	28971.9	50.00
IAS	337	DRLASDLERRKREAQ	RLASDLERR	0.0501	29069.0	50.00
IAS	97	VGDDEATVVITVVS	TVVITVVS	0.0499	29128.5	50.00
IAS	278	ELNEESNFPAIVKFL	SNFPAIVKF	0.0498	29166.3	50.00
IAS	93	PAARVGDDEATVVIT	PAARVGDDE	0.0497	29201.4	50.00
IAS	571	DHYREIAEEITRSLT	REIAEEITR	0.0496	29244.3	50.00
IAS	480	HKMIIGMRGSYGGVV	KMIIGMRGS	0.0494	29309.9	50.00
IAS	458	MGTDFGRLKALGRME	RLKALGRME	0.0493	29317.2	50.00
IAS	452	ELSPHVMGTDFGRLK	SPHVMGTDF	0.0493	29322.0	50.00
IAS	422	FVWAYQRSEALADDV	RSEALADDV	0.0488	29494.4	50.00
IAS	601	ERDNRIRELQRQLGI	NRIRELQRQ	0.0485	29570.8	50.00
IAS	504	GLGLFNPLSVGAGLI	GLGLFNPLS	0.0484	29602.2	50.00
IAS	483	IIGMRGSYGGVVMIG	RGSYGGVVM	0.0484	29614.0	50.00
IAS	417	AVGDNFVWAYQRSEA	NFVWAYQRS	0.0484	29624.3	50.00
IAS	49	NERGDLVQRLTRARQ	RGDLVQRLT	0.0481	29701.3	50.00
IAS	419	GDNFVWAYQRSEALA	NFVWAYQRS	0.0481	29714.5	50.00
IAS	279	LNEESNFPAIVKFLS	SNFPAIVKF	0.0479	29766.3	50.00
IAS	418	VGDNFVWAYQRSEAL	NFVWAYQRS	0.0479	29773.4	50.00
IAS	22	TVTQPDDPRRVGVIV	TVTQPDDPR	0.0479	29783.1	50.00
IAS	602	RDNRIRELQRQLGIL	NRIRELQRQ	0.0474	29925.2	50.00
IAS	384	RTVTEDAERQIDSCD	RTVTEDAER	0.0474	29937.8	50.00
IAS	96	RVGDDEATVVITVVS	EATVVITVV	0.0472	30004.9	50.00
IAS	482	MIIGMRGSYGGVVM	RGSYGGVVM	0.0470	30075.8	50.00
IAS	198	AVLVVSDTSQEFTEP	AVLVVSDTS	0.0468	30147.1	50.00
IAS	529	QNRLLRVRSEAKANV	RLLRVRSEA	0.0466	30208.8	50.00
IAS	599	ETERDNRIRELQRQL	NRIRELQRQ	0.0463	30282.2	50.00
IAS	551	SFVVSQSRDRLKMI	SFVVSQSR	0.0463	30285.8	50.00
IAS	132	VDIPVDDISTDVRR	VDIPVDDIS	0.0462	30328.1	50.00
IAS	356	QTALWQQVLDGFND	QTALWQQVL	0.0456	30536.8	50.00
IAS	478	RGHKMIIGMRGSYGG	IIGMRGSYG	0.0455	30549.4	50.00
IAS	311	EIRSATEQLAVSLGS	RSATEQLAV	0.0455	30561.0	50.00
IAS	282	ESNFPAIVKFLSEQV	SNFPAIVKF	0.0452	30645.7	50.00
IAS	615	ILSQVNDNLAGLEPT	NDNLAGLEP	0.0450	30732.1	50.00
IAS	479	GHKMIIGMRGSYGGV	KMIIGMRGS	0.0450	30737.4	50.00
IAS	459	GTFDFGRLKALGRMES	RLKALGRME	0.0449	30773.6	50.00
IAS	441	ADAGLDSVLSAELSP	DSVLSAELS	0.0446	30851.0	50.00
IAS	613	LVNDNLAGLE	VNDNLAGLE	0.0445	30877.4	50.00
IAS	604	NRIRELQRQLGILSQ	NRIRELQRQ	0.0445	30886.7	50.00
IAS	232	TKTDLYPRWREIVNA	KTDLYPRWR	0.0445	30895.1	50.00
IAS	199	VLVVSDTSQEFTEPE	LVVSDTSQE	0.0443	30952.3	50.00
IAS	600	TERDNRIRELQRQLG	NRIRELQRQ	0.0442	30994.5	50.00
IAS	555	SKQSRDRLKMIQRLL	RLKMIQRLL	0.0439	31099.3	50.00
IAS	306	AGVLGEIRSATEQLA	GEIRSATEQ	0.0439	31102.4	50.00
IAS	261	IAVSSLLRSHAVTLN	SLLRSHAVT	0.0436	31206.5	50.00

IAS	556	KQSRDRLKMIQRLLR	RLKMIQRLL	0.0435	31246.0	50.00
IAS	233	KTDLYPRWREIVNAN	KTDLYPRWR	0.0434	31268.4	50.00
IAS	189	TLGLLPEADAVLVVS	TLGLLPEAD	0.0430	31398.6	50.00
IAS	614	GILSQVNDNLAGLEP	NDNLAGLEP	0.0429	31420.3	50.00
IAS	357	TALWQQVVLGDGFNDL	TALWQQVVLG	0.0427	31498.3	50.00
IAS	260	IIAVSSLLRSHAVTL	SLLRSHAVT	0.0427	31508.5	50.00
IAS	197	DAVLVVSDDTSQEFTE	AVLVVSDDTS	0.0427	31509.5	50.00
IAS	399	PTAHWAEIGNDVENA	AHWAEIGND	0.0426	31541.2	50.00
IAS	401	AHWAEIGNDVENAI	AHWAEIGND	0.0423	31636.2	50.00
IAS	431	ALADDVARSFADAGL	LADDVARSF	0.0420	31724.0	50.00
IAS	262	AVSSLLRSHAVTLND	AVSSLLRSH	0.0420	31734.6	50.00
IAS	405	EIGNDVENAIATAVG	ENAIATAVG	0.0418	31807.5	50.00
IAS	421	NFVWAYQRSEALADD	QRSEALADD	0.0409	32112.5	50.00
IAS	454	SPHVMGTDFGRLKAL	SPHVMGTDF	0.0409	32129.2	50.00
IAS	234	TDLYPRWREIVNANA	RWREIVNAN	0.0407	32176.1	50.00
IAS	457	VMGTDFGRLKALGRM	GRLKALGRM	0.0407	32199.1	50.00
IAS	538	EAKANVRRFVDDISF	RRFVDDISF	0.0406	32239.9	50.00
IAS	428	RSEALADDVARSFAD	RSEALADDV	0.0402	32366.4	50.00
IAS	594	AAQVAETERDNRIRE	AQVAETERD	0.0402	32378.3	50.00
IAS	598	AETERDNRIRELQRQ	NRIRELQRQ	0.0401	32406.4	50.00
IAS	95	ARVGDDEATVVITVV	EATVVITVV	0.0396	32576.9	50.00
IAS	385	TVTEDAERQIDSCDP	TVTEDAERQ	0.0394	32647.8	50.00
IAS	573	YREIAEEITRSLTES	REIAEEITR	0.0389	32810.7	50.00
IAS	554	YRKQSRDRLKMIQRL	DRLKMIQRL	0.0385	32978.7	50.00
IAS	377	HDLRTRFRFTVTEDAE	TRFRFTVTE	0.0384	32989.4	50.00
IAS	574	REIAEEITRSLTESL	REIAEEITR	0.0384	33014.8	50.00
IAS	552	FVVSQSRDRLKMIQ	FVVSQSRD	0.0383	33028.3	50.00
IAS	400	TAHWAEIGNDVENAI	AHWAEIGND	0.0379	33173.4	50.00
IAS	575	EIAEEITRSLTESLQ	EEITRSLTE	0.0379	33197.1	50.00
IAS	48	LNRGDLVQRLTRAR	RGDLVQRLT	0.0366	33657.5	50.00
IAS	603	DNRIRELQRQLGILS	NRIRELQRQ	0.0364	33727.1	50.00
IAS	537	SEAKANVRRFVDDIS	AKANVRRFV	0.0362	33780.1	50.00
IAS	595	AQVAETERDNRIREL	AQVAETERD	0.0359	33915.9	50.00
IAS	191	GLLPEADAVLVVSDT	GLLPEADAV	0.0358	33933.9	50.00
IAS	612	QLGILSQVNDNLAGL	QLGILSQVN	0.0356	34016.6	50.00
IAS	340	ASDLMERRKREAQQA	RRKREAQQA	0.0348	34299.7	50.00
IAS	455	PHVGTDFGRLKALG	TDFGRLKAL	0.0348	34307.9	50.00
IAS	566	QRLLRDHYREIAEEI	QRLLRDHYR	0.0344	34466.4	50.00
IAS	564	MIQRLLRDHYREIAE	RLLRDHYRE	0.0341	34556.8	50.00
IAS	330	VNDPNLRDRLASDLE	RDRLASDLE	0.0334	34820.6	50.00
IAS	567	RLLRDHYREIAEEIT	YREIAEEIT	0.0334	34835.3	50.00
IAS	376	DHDLRTRFRFTVTE	TRFRFTVTE	0.0332	34927.4	50.00
IAS	339	LASDLERRKREAQQA	RRKREAQQA	0.0331	34962.9	50.00
IAS	565	IQRLLRDHYREIAEE	QRLLRDHYR	0.0329	35021.6	50.00
IAS	359	LWQQVVLGDGFNDLTA	QQVVLGDGFN	0.0323	35268.4	50.00
IAS	404	AEIGNDVENAIATAV	VENAIATAV	0.0322	35279.9	50.00
IAS	420	DNFVWAYQRSEALAD	NFVWAYQRS	0.0319	35398.4	50.00
IAS	23	VTQPDDPRRVGVIVE	TQPDDPRRV	0.0319	35419.5	50.00
IAS	375	VDHLRTRFRFTVTE	TRFRFTVTE	0.0316	35530.8	50.00
IAS	402	HWAEIGNDVENAIAT	HWAEIGNDV	0.0316	35538.8	50.00
IAS	596	QVAETERDNRIRELQ	RDNIRELQ	0.0315	35540.4	50.00
IAS	133	DIPVDDISTDVRRAP	IPVDDISTD	0.0314	35594.3	50.00
IAS	456	HVMGTDFGRLKALGR	TDFGRLKAL	0.0310	35751.8	50.00
IAS	358	ALWQQVVLGDGFNDLT	QQVVLGDGFN	0.0305	35930.5	50.00
IAS	190	LGLLPEADAVLVVSD	GLLPEADAV	0.0299	36177.1	50.00
IAS	429	SEALADDVARSFADA	SEALADDVA	0.0298	36211.9	50.00
IAS	94	AARVGDDEATVVITV	RVGDDEATV	0.0295	36352.8	50.00
IAS	439	SFADAGLDSVLSAEL	LDSVLSAEL	0.0293	36416.2	50.00
IAS	403	WAEIGNDVENAIATA	EIGNDVENA	0.0255	37926.6	50.00
IAS	597	VAETERDNRIRELQR	RDNIRELQ	0.0239	38605.2	50.00
IAS	553	VVSKQSRDRLKMIQR	RDRLKMIQR	0.0236	38745.0	50.00
IAS	331	NDPNLRDRLASDLER	RDRLASDLE	0.0233	38863.8	50.00
IAS	362	QVLGDGFNDLTADVD	FNDLTADVD	0.0231	38957.3	50.00
IAS	367	GFNDLTADVHDHLRT	FNDLTADVD	0.0219	39436.9	50.00
IAS	363	VLGDGFNDLTADVHD	NDLTADVHD	0.0218	39492.0	50.00
IAS	430	EALADDVARSFADAG	ADDVARSF	0.0218	39497.5	50.00
IAS	366	DGFNDLTADVHDHLR	FNDLTADVD	0.0212	39747.9	50.00
IAS	364	LGDGFNDLTADVHD	FNDLTADVD	0.0211	39775.9	50.00
IAS	329	VVNDPNLRDRLASDL	LRDRLASDL	0.0210	39826.7	50.00
IAS	368	FNDLTADVHDHLRTR	FNDLTADVD	0.0209	39877.6	50.00

IAS	365	GDGFNDLTADVHDHDL	FNDLTADV	0.0208	39928.9	50.00
IAS	361	QQVLGDGFNDLTADV	QQVLGDGFN	0.0191	40674.6	50.00
IAS	370	DLTADVHDHDLRTRFR	DLTADVHD	0.0184	40970.1	50.00
IAS	360	WQQVLGDGFNDLTAD	QQVLGDGFN	0.0181	41102.8	50.00
IAS	369	NDLTADVHDHDLRTRF	DLTADVHD	0.0181	41109.5	50.00
IAS	374	DVDHDLRTRFRFRTVTE	RTRFRFRTVTE	0.0146	42694.7	50.00
IAS	371	LTADVHDHDLRTRFRFRT	TADVHDHDLR	0.0135	43212.9	50.00
IAS	372	TADVHDHDLRTRFRFRTV	TADVHDHDLR	0.0126	43609.4	50.00
IAS	373	ADVHDHDLRTRFRFRTVT	LRTRFRFRTVT	0.0088	45456.5	50.00

Allele: IAs. Number of high binders 0. Number of weak binders 0. Number of peptides 626

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