



nHLAPred
A neural network based MHC Class-I Binding Peptide Prediction Server

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Antigen Name	Untitled
Scanned on	Sat Feb 27 16:07:59 2010
Length of input sequence	578 amino acids
Number of nonamers from input sequence	570
Threshold setting	.5
Number of alleles in query	67
Number of top scorers to be displayed	4
Number of top scorers to be displayed	4
Proteosome Filter	on at 5 threshold
ImmunoProteosome Filter	on at 5 threshold

ALLELE: HLA-A1				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ALDAGRINH	28	7.840
ANNs+QM	2	NADVLAEL	482	0.790
ANNs+QM	3	LAACDAAAL	256	0.730
ANNs+QM	4	ETGEPAAAA	503	0.610

ALLELE: HLA-A2				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RLLLEVCA	350	1.000
ANNs+QM	2	GVCESCVSL	71	0.980

ANNs+QM	3	LIDDAVDAL	248	0.980
ANNs+QM	4	AVYPLVIRA	200	0.970

ALLELE: HLA-A*0201				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	GVCESCVSL	71	1.000
ANNs+QM	2	RLLLEVCA	350	1.000
ANNs+QM	3	VLTHESAPL	465	1.000
ANNs+QM	4	VLDQLLAGA	219	0.990

ALLELE: HLA-A*0202				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LLGVTDVAL	240	0.970
ANNs+QM	2	ALELLQNEL	562	0.950
ANNs+QM	3	ANVATAKAV	518	0.920
ANNs+QM	4	LAACDAAAL	256	0.910

ALLELE: HLA-A*0203				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SLAPNAPGS	78	0.950
ANNs+QM	2	VLDQLLAGA	219	0.950
ANNs+QM	3	SPVGGGANV	512	0.910
ANNs+QM	4	AVYPLVIRA	200	0.670

ALLELE: HLA-A*0206				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	GVCECVSL	71	1.000
ANNs+QM	2	EHVTAPLSV	19	0.980
ANNs+QM	3	AVYPLVIRA	200	0.980
ANNs+QM	4	SPVGGGANV	512	0.980

ALLELE: HLA-A*0205				
Threshold for 4 % with score: 5.950				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	LAEALKDAL	486	11.500
QM	2	LIDDAVDAL	248	10.970
QM	3	AVYPLVIRA	200	10.200
QM	4	ESAPLARRL	469	10.190

ALLELE: HLA-A*1101				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ADTHVTYTR	228	1.000
ANNs+QM	2	VMLAGATVR	449	0.870
ANNs+QM	3	VVDDAVYPL	196	0.620
ANNs+QM	4	SPRRDPEEV	553	0.480

ALLELE: HLA-A11				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ADTHVTYTR	228	1.000

ANNs+QM	2	AVDALAACD	252	0.940
ANNs+QM	3	VMLAGATVR	449	0.850
ANNs+QM	4	YTRALGLLG	234	0.740

ALLELE: HLA-A24				
Threshold for 4 % with score: 7.670				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SPRDTLSVL	212	9.800
QM	2	SEQRNADVL	478	7.680
QM	3	SARILARSL	51	7.160
QM	4	ALELLQNEL	562	7.150

ALLELE: HLA-A*2402				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	TYTRALGLL	233	0.990
ANNs+QM	2	RSRTTEVML	443	0.860
ANNs+QM	3	FATDLLERF	281	0.530
ANNs+QM	4	VTYTRALGL	232	0.520

ALLELE: HLA-A3				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	VRCETGEPA	500	0.940
ANNs+QM	2	AVYPLVIRA	200	0.920
ANNs+QM	3	ETGEPAAAA	503	0.910
ANNs+QM	4	RTTEVMLAG	445	0.890

ALLELE: HLA-A*3101				
Threshold for 4 % with score: -1.609				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VMLAGATVR	449	1.386
QM	2	AVYPLVIRA	200	-1.427
QM	3	RLLLEVVCA	350	-1.427

ALLELE: HLA-A31				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ADTHVTYTR	228	1.000
ANNs+QM	2	VMLAGATVR	449	0.960
ANNs+QM	3	VALIDDAVD	246	0.890
ANNs+QM	4	VTDVALIDD	243	0.870

ALLELE: HLA-A*0301				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	VMLAGATVR	449	0.900
ANNs+QM	2	QEHVTAPLS	18	0.700
ANNs+QM	3	AVDALAACD	252	0.680
ANNs+QM	4	ANVATAKAV	518	0.680

ALLELE: HLA-A*3302				
Threshold for 4 % with score: -0.105				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VMLAGATVR	449	2.708
QM	2	EVVGQEHVT	14	0.405

QM	3	EVMLAGATV	448	0.405
QM	4	ESAPLARRL	469	0.405

ALLELE: HLA-A68.1				
Threshold for 4 % with score: 1.609				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	EVVGQEHVT	14	3.584
QM	2	EVMLAGATV	448	3.178
QM	3	VMLAGATVR	449	2.303
QM	4	VVGQEHVTA	15	2.079

ALLELE: HLA-A20 Cattle				
Threshold for 4 % with score: 3.401				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VMLAGATVR	449	5.298
QM	2	TLSVLDQLL	216	2.708
QM	3	LLGVTDVAL	240	2.708
QM	4	VLTHESAPL	465	2.708

ALLELE: HLA-A2.1				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	VLTHESAPL	465	1.000
ANNs+QM	2	ALDAGRINH	28	0.990
ANNs+QM	3	VLDQLLAGA	219	0.980
ANNs+QM	4	VPDAASRGV	298	0.960

ALLELE: HLA-B14				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ERFRDLIVL	287	1.000
ANNs+QM	2	QRDEEEHML	536	1.000
ANNs+QM	3	TRALGLLGV	235	0.990
ANNs+QM	4	SPRDTLSVL	212	0.970

ALLELE: HLA-B*2702				
Threshold for 4 % with score: 0.000				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RRDPEEVAL	555	5.193
QM	2	ERFRDLIVL	287	4.500
QM	3	MRGATAPRL	343	4.094
QM	4	QRDEEEHML	536	4.094

ALLELE: HLA-B27				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ERFRDLIVL	287	1.000
ANNs+QM	2	RRDPEEVAL	555	1.000
ANNs+QM	3	TRALGLLGV	235	0.950
ANNs+QM	4	QRNADVLAEL	480	0.830

ALLELE: HLA-B*2705				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	TRALGLLGV	235	1.000

ANNs+QM	2	ERFRDLIVL	287	1.000
ANNs+QM	3	PRLLEVVC	349	0.990
ANNs+QM	4	ARRLSEQRN	474	0.950

ALLELE: HLA-B*3501				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRDTLSVL	212	1.000
ANNs+QM	2	APGSIDVVE	83	0.920
ANNs+QM	3	SPVGGGANV	512	0.780
ANNs+QM	4	SPRRDPEEV	553	0.730

ALLELE: HLA-B*3701				
Threshold for 4 % with score: 0.405				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	IDDAVDALA	249	3.401
QM	2	SEQRNADVL	478	2.303
QM	3	QEHVTAPLS	18	1.609
QM	4	TLSVLDQLL	216	1.609

ALLELE: HLA-B*3801				
Threshold for 4 % with score: 0.445				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	THVTYTRAL	230	3.401
QM	2	EHVTAPLSV	19	2.054
QM	3	VVDDAVYPL	196	2.054
QM	4	LIDDAVDAL	248	2.054

ALLELE: HLA-B*3901				
Threshold for 4 % with score: 1.792				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	THVTYTRAL	230	5.193
QM	2	EHVTAPLSV	19	4.094
QM	3	ERFRDLIVL	287	3.807
QM	4	QRDEEEHML	536	3.807

ALLELE: HLA-B*3902				
Threshold for 4 % with score: 0.693				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VTAPLSVAL	21	0.875
QM	2	DTLSVLDQL	215	0.875
QM	3	TLSVLDQLL	216	0.875
QM	4	THVTYTRAL	230	0.875

ALLELE: HLA-B*40				
Threshold for 4 % with score: 0.000				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SEQRNADV L	478	2.996
QM	2	CETGEPAAA	502	2.996
QM	3	TDVALIDDA	244	2.303
QM	4	DDAVDALAA	250	1.609

ALLELE: HLA-B*4403				
Threshold for 4 % with score: 0.405				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SEQRNADV L	478	2.485

QM	2	QEHVTAPLS	18	1.792
QM	3	CETGEPAAA	502	1.792
QM	4	DDAVDALAA	250	1.504

ALLELE: HLA-B*5101				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRRDPEEV	553	1.000
ANNs+QM	2	VPDAASRGV	298	0.960
ANNs+QM	3	VATAKAVNP	520	0.930
ANNs+QM	4	SPRDTLSVL	212	0.900

ALLELE: HLA-B*5102				
Threshold for 4 % with score: 9.050				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VPDAASRGV	298	15.340
QM	2	ANVATAKAV	518	11.490
QM	3	SPRRDPEEV	553	11.370
QM	4	SPVGGGANV	512	10.900

ALLELE: HLA-B*5103				
Threshold for 4 % with score: 9.280				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VPDAASRGV	298	15.340
QM	2	ANVATAKAV	518	11.490
QM	3	SPRRDPEEV	553	11.370
QM	4	SPVGGGANV	512	10.900

ALLELE: HLA-B*5201				
Threshold for 4 % with score: 1.974				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VPDAASRGV	298	3.391
QM	2	ICEQEGVVV	189	2.708
QM	3	SPVGGGANV	512	2.015
QM	4	SPRDTLSVL	212	1.599

ALLELE: HLA-B*5301				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRDTLSVL	212	1.000
ANNs+QM	2	VPDAASRGV	298	0.950
ANNs+QM	3	SPVGGGANV	512	0.940
ANNs+QM	4	APQAVPRPS	389	0.930

ALLELE: HLA-B*5401				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRDTLSVL	212	1.000
ANNs+QM	2	SPVGGGANV	512	1.000
ANNs+QM	3	SPRRDPEEV	553	1.000
ANNs+QM	4	APGSIDVVE	83	0.980

ALLELE: HLA-B*51				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRDTLSVL	212	1.000

ANNs+QM	2	SPRRDPEEV	553	0.990
ANNs+QM	3	VPDAASRGV	298	0.970
ANNs+QM	4	SPVGGGANV	512	0.880

ALLELE: HLA-B*5801				
Threshold for 4 % with score: -0.223				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	FATDLLERF	281	3.679
QM	2	VTAPLSVAL	21	1.792
QM	3	RSRTTEVML	443	1.792
QM	4	ATTEPEKVL	154	1.386

ALLELE: HLA-B60				
Threshold for 4 % with score: 1.386				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SEQRNADV L	478	5.075
QM	2	VTAPLSVAL	21	2.868
QM	3	PEEVALELL	558	2.773
QM	4	DTLSVLDQL	215	2.270

ALLELE: HLA-B61				
Threshold for 4 % with score: 0.000				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	CETGEPAAA	502	3.689
QM	2	TDVALIDDA	244	2.303
QM	3	SEQRNADV L	478	2.079
QM	4	DDAVDALAA	250	1.609

ALLELE: HLA-B62				
Threshold for 4 % with score: 0.693				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	FATDLLERF	281	1.482
QM	2	LLGVTDVAL	240	0.875
QM	3	RLLLEVCA	350	0.875
QM	4	TLSVLDQLL	216	0.693

ALLELE: HLA-B7				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRDTLSVL	212	1.000
ANNs+QM	2	ATTEPEKVL	154	0.960
ANNs+QM	3	APQAVPRPS	389	0.950
ANNs+QM	4	PAREPRPVL	407	0.950

ALLELE: HLA-B*0702				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPRDTLSVL	212	1.000
ANNs+QM	2	SPRRDPEEV	553	1.000
ANNs+QM	3	VPDAASRGV	298	0.990
ANNs+QM	4	SPVGGGANV	512	0.980

ALLELE: HLA-B8				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RSRTTEVML	443	0.740

ANNs+QM	2	ACDAAALFG	258	0.710
ANNs+QM	3	VTYTRALGL	232	0.700
ANNs+QM	4	YTRALGLLG	234	0.690

ALLELE: HLA-Cw*0301				
Threshold for 4 % with score: 2.015				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GGVDDTREL	98	2.996
QM	2	DTLSVLDQL	215	2.996
QM	3	THVTYTRAL	230	2.996
QM	4	VTYTRALGL	232	2.996

ALLELE: HLA-Cw*0401				
Threshold for 4 % with score: 4.370				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SPRDTLSVL	212	11.160
QM	2	QRDEEEHML	536	9.960
QM	3	VVDDAVYPL	196	9.570
QM	4	LIDDAVDAL	248	9.570

ALLELE: HLA-Cw*0602				
Threshold for 4 % with score: 1.482				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SARILARSL	51	1.982
QM	2	TLSVLDQLL	216	1.887
QM	3	ESAPLARRL	469	1.887
QM	4	NADVLAEL	482	1.887

ALLELE: HLA-Cw*0702				
Threshold for 4 % with score: 1.212				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	FATDLLERF	281	1.818
QM	2	SPRDTLSVL	212	1.617
QM	3	VTAPLSVAL	21	1.394
QM	4	TYTRALGLL	233	1.281

ALLELE: H2-Db				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SEQRNADV L	478	1.000
ANNs+QM	2	LAGATVRAL	451	0.960
ANNs+QM	3	RRDPEEVAL	555	0.910
ANNs+QM	4	RSRTTEVML	443	0.900

ALLELE: H2-Dd				
Threshold for 4 % with score: 11.800				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GEPAAAASP	505	18.900
QM	2	GGGSPRDTL	209	17.270
QM	3	VGGGANVAT	514	15.360
QM	4	GGVDDTREL	98	14.850

ALLELE: H2-Kb				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	NADVLA EAL	482	1.000

ANNs+QM	2	ESAPLARRL	469	0.990
ANNs+QM	3	SARILARSL	51	0.950
ANNs+QM	4	RRDPEEVAL	555	0.910

ALLELE: H2-Kd				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SPVGGGANV	512	1.000
ANNs+QM	2	TYTRALGLL	233	0.960
ANNs+QM	3	ATTEPEKVL	154	0.950
ANNs+QM	4	YAEVVQAGL	332	0.950

ALLELE: H2-Kk				
Threshold for 4 % with score: 1.609				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SEQRNADVL	478	2.996
QM	2	QEHVTAPLS	18	2.303
QM	3	CETGEPAAA	502	2.303
QM	4	TDVALIDDA	244	1.386

ALLELE: H2-Ld				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LAACDAAAL	256	1.000
ANNs+QM	2	ESAPLARRL	469	0.830
ANNs+QM	3	SPRDTLSVL	212	0.700
ANNs+QM	4	PAREPRPVL	407	0.510

ALLELE: HLA-G

Threshold for 4 % with score: 9.260

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VTYTRALGL	232	14.450
QM	2	MRGATAPRL	343	13.450
QM	3	ESAPLARRL	469	13.450
QM	4	ALELLQNEL	562	10.850

ALLELE: H-2Qa

Threshold for 4 % with score: 6.000

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	DTLSVLDQL	215	9.660
QM	2	LLGVTDVAL	240	7.090
QM	3	TLSVLDQLL	216	6.760
QM	4	TYTRALGLL	233	6.670

ALLELE: HLA-B*2706

Threshold for 4 % with score: 5.000

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	QRDEEEHML	536	7.670
QM	2	RRDPEEVAL	555	7.670
QM	3	ICEQEGVVV	189	7.000
QM	4	RCETGEPAA	501	7.000

ALLELE: HLA-B35

Threshold for 4 % with score: 8.350

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SPRDTLSVL	212	12.320

QM	2	NADVLAERAL	482	9.760
QM	3	VVDDAVYPL	196	9.060
QM	4	VPDAASRGV	298	8.890

ALLELE: Mamu-A*01				
Threshold for 4 % with score: 3.650				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	AVYPLVIRA	200	6.190
QM	2	SARILARSL	51	5.580
QM	3	VTAPLSVAL	21	5.320
QM	4	VVDDAVYPL	196	3.660

ALLELE: HLA-A*0204				
Threshold for 4 % with score: 12.070				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RLLEVVCA	350	16.790
QM	2	LLGVTDVAL	240	16.310
QM	3	VLTHESAPL	465	16.190
QM	4	LIDDAVDAL	248	15.720

ALLELE: HLA-B*2703				
Threshold for 4 % with score: 5.130				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	QRDEEHML	536	12.430
QM	2	ERFRDLIVL	287	11.110
QM	3	RRDPEEVAL	555	11.100
QM	4	ARRLSEQRN	474	7.260

ALLELE: HLA-B*2704				
Threshold for 4 % with score: 8.790				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	MRGATAPRL	343	14.110
QM	2	GGGSPRDTL	209	12.010
QM	3	ERFRDLIVL	287	11.980
QM	4	VLTHESAPL	465	9.670

ALLELE: HLA-B*2902				
Threshold for 4 % with score: 7.750				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	PEEVALELL	558	12.200
QM	2	GEMRGATAP	341	9.590
QM	3	GEPAAAASP	505	9.500
QM	4	SEQRNADVL	478	9.310

ALLELE: HLA-A*3301				
Threshold for 4 % with score: 3.840				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	ADTHVTYTR	228	4.810
QM	2	SLAPNAPGS	78	3.640
QM	3	AVYPLVIRA	200	1.820
QM	4	ALDAGRINH	28	1.650

ALLELE: HLA-B44				
Threshold for 4 % with score: 4.900				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GEPAAAASP	505	8.720

QM	2	GEMRGATAP	341	7.790
QM	3	CETGEPAAA	502	7.370
QM	4	SEQRNADVL	478	7.320

ALLELE: HLA-A*6801				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SLAPNAPGS	78	0.970
ANNs+QM	2	VMLAGATVR	449	0.920
ANNs+QM	3	VVDDAVYPL	196	0.900
ANNs+QM	4	AVDALAACD	252	0.800

ALLELE: HLA-A*6802				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	EVVGQEHVT	14	1.000
ANNs+QM	2	RLLEVVCA	350	1.000
ANNs+QM	3	EVMLAGATV	448	1.000
ANNs+QM	4	ATTEPEKVL	154	0.990