



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

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Antigen Name	Untitled
Scanned on	Mon Feb 15 20:15:11 2010
Length of input sequence	582 amino acids
Number of nonamers from input sequence	574
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	AVEASAASG	179	1.000
ANNs+QM	2	YLDIPGDVL	168	0.920
ANNs+QM	3	ASAGNAAAA	60	0.860
ANNs+QM	4	SAGNAAAA	61	0.770

ALLELE: HLA-A2				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RSASPCTVL	4	0.990
ANNs+QM	2	RLPVTVVIL	470	0.990

ANNs+QM	3	AIDRALDVL	205	0.910
ANNs+QM	4	AMARADVVL	272	0.880

ALLELE: HLA-A*0201				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	HLVVDALKA	17	1.000
ANNs+QM	2	YLDIPGDVL	168	1.000
ANNs+QM	3	AIDRALDVL	205	1.000
ANNs+QM	4	VLAQAQRPL	212	1.000

ALLELE: HLA-A*0202				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LNAHARHEL	508	7.850
ANNs+QM	2	AIDRALDVL	205	0.990
ANNs+QM	3	VLAQAQRPL	212	0.940
ANNs+QM	4	YLDIPGDVL	168	0.930

ALLELE: HLA-A*0203				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RSASPCTVL	4	0.980
ANNs+QM	2	SGPGFLNGL	83	0.980
ANNs+QM	3	CRYRLPVTV	467	0.950
ANNs+QM	4	VLAQAQRPL	212	0.910

ALLELE: HLA-A*0206				
Threshold for .5 % with score: .5				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	CRYRLPVTV	467	0.950
ANNs+QM	2	AVETGRPVV	440	0.770
ANNs+QM	3	VVGIPITDL	34	0.750
ANNs+QM	4	GVMGIGMGY	427	0.640

ALLELE: HLA-A*0205				
Threshold for 4 % with score: 5.950				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	YLDIPGDVL	168	10.930
QM	2	AIDRALDVL	205	9.870
QM	3	WTGELADRK	350	9.160
QM	4	AMARADVVL	272	8.910

ALLELE: HLA-A*1101				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LVLSKGAAY	221	0.920
ANNs+QM	2	GVMGIGMGY	427	0.850
ANNs+QM	3	VSTPTELES	528	0.780
ANNs+QM	4	VLAQAQRPL	212	0.660

ALLELE: HLA-A11				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	HPQSAAAAR	261	1.000

ANNs+QM	2	PTVLNAHAR	505	0.990
ANNs+QM	3	LVLSKGAAY	221	0.960
ANNs+QM	4	WTGELADRK	350	0.960

ALLELE: HLA-A24				
Threshold for 4 % with score: 7.670				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RHDPAPTVL	500	11.130
QM	2	AMARADVVL	272	11.040
QM	3	RSASPCTVL	4	10.240
QM	4	DIGSVMSAL	327	9.700

ALLELE: HLA-A*2402				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	QWSADAKFI	297	0.960
ANNs+QM	2	NAHARHELI	509	0.940
ANNs+QM	3	IYGVVGIPI	31	0.910
ANNs+QM	4	RHDPAPTVL	500	0.730

ALLELE: HLA-A3				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	PTVLNAHAR	505	0.990
ANNs+QM	2	HPQSAAAAR	261	0.980
ANNs+QM	3	YVVNEGANA	396	0.980
ANNs+QM	4	ASAGNAAAA	60	0.970

ALLELE: HLA-A*3101				
Threshold for 4 % with score: -1.609				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GIPITDLAR	36	1.386
QM	2	LPAPEAIDR	200	-0.916
QM	3	AARSLAMAR	267	-0.916

ALLELE: HLA-A31				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LPAPEAIDR	200	0.980
ANNs+QM	2	GVYLDIPGD	166	0.920
ANNs+QM	3	WTGELADRK	350	0.870
ANNs+QM	4	VVLLVGARL	278	0.850

ALLELE: HLA-A*0301				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LVLSKGAAY	221	0.990
ANNs+QM	2	VLAQAQRPL	212	0.970
ANNs+QM	3	ASAGNAAAA	60	0.940
ANNs+QM	4	HPQSAAAAR	261	0.820

ALLELE: HLA-A*3302				
Threshold for 4 % with score: -0.105				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GIPITDLAR	36	2.708
QM	2	LPAPEAIDR	200	1.099

QM	3	HPQSAAAAR	261	1.099
QM	4	AARSLAMAR	267	1.099

ALLELE: HLA-A68.1				
Threshold for 4 % with score: 1.609				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	WTGELADRK	350	4.094
QM	2	DVLGQAVEA	174	3.178
QM	3	LPAPEAIDR	200	2.708
QM	4	TVLTDGCHL	10	2.485

ALLELE: HLA-A20 Cattle				
Threshold for 4 % with score: 3.401				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GIPITDLAR	36	3.689
QM	2	LPAPEAIDR	200	3.689
QM	3	HPQSAAAAR	261	3.689
QM	4	AARSLAMAR	267	3.689

ALLELE: HLA-A2.1				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	GNAAAAGF	63	1.000
ANNs+QM	2	VLAQAQRPL	212	1.000
ANNs+QM	3	YAIAAVET	435	0.970
ANNs+QM	4	QSAAAARSL	263	0.960

ALLELE: HLA-B14				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	QAQRPLLVL	215	0.970
ANNs+QM	2	SALLEAAAD	333	0.970
ANNs+QM	3	PRLPAPEA	197	0.960
ANNs+QM	4	AIDRALDVL	205	0.940

ALLELE: HLA-B*2702				
Threshold for 4 % with score: 0.000				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	CRYRLPVTV	467	4.605
QM	2	FRHEASAGN	56	2.303
QM	3	RLPVTVVIL	470	0.993
QM	4	GNAAAAAGF	63	0.693

ALLELE: HLA-B27				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	CRYRLPVTV	467	0.800
ANNs+QM	2	PRLPAPEA	197	0.410
ANNs+QM	3	TGDIGSVMS	325	0.300
ANNs+QM	4	FRHEASAGN	56	0.290

ALLELE: HLA-B*2705				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	CRYRLPVTV	467	0.980

ANNs+QM	2	FRHEASAGN	56	0.960
ANNs+QM	3	PRLPAPEA	197	0.860
ANNs+QM	4	YAIAAAVET	435	0.550

ALLELE: HLA-B*3501				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RPVDPAPRL	191	1.000
ANNs+QM	2	LPMSMAKGL	248	1.000
ANNs+QM	3	HPMRFYNAL	374	1.000
ANNs+QM	4	TPTELESAL	530	1.000

ALLELE: HLA-B*3701				
Threshold for 4 % with score: 0.405				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VEHTGIPFL	240	3.912
QM	2	ADGVESGHL	557	3.689
QM	3	NEGANALDL	399	2.303
QM	4	LESALTDAL	534	2.303

ALLELE: HLA-B*3801				
Threshold for 4 % with score: 0.445				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RHDPAPTVL	500	4.762
QM	2	RHEASAGNA	57	2.197
QM	3	APEAIDRAL	202	2.054
QM	4	TPTELESAL	530	1.649

ALLELE: HLA-B*3901				
Threshold for 4 % with score: 1.792				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RHDPAPTVL	500	5.598
QM	2	AIDRALDVL	205	2.603
QM	3	RPVDPAPRL	191	2.485
QM	4	CRYRLPVTV	467	2.303

ALLELE: HLA-B*3902				
Threshold for 4 % with score: 0.693				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GCHLVVDAL	15	0.875
QM	2	SGPGFLNGL	83	0.875
QM	3	APEAIDRAL	202	0.875
QM	4	LPMSMAKGL	248	0.875

ALLELE: HLA-B*440				
Threshold for 4 % with score: 0.000				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	HEASAGNAA	58	3.689
QM	2	VEHTGIPFL	240	2.996
QM	3	ADVLLVGA	276	2.996
QM	4	NEGANALDL	399	2.996

ALLELE: HLA-B*4403				
Threshold for 4 % with score: 0.405				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VESGHLAKL	560	2.603

QM	2	HEASAGNAA	58	2.485
QM	3	NEGANALDL	399	1.792
QM	4	LESALTDAL	534	1.792

ALLELE: HLA-B*5101				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	IGRGVARAI	148	1.000
ANNs+QM	2	NAHARHELI	509	1.000
ANNs+QM	3	YAIAAAVET	435	0.980
ANNs+QM	4	TPTELESAL	530	0.970

ALLELE: HLA-B*5102				
Threshold for 4 % with score: 9.050				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	NAHARHELI	509	15.940
QM	2	IGRGVARAI	148	13.720
QM	3	LPMSMAKGL	248	11.760
QM	4	LPDSHPQSA	257	10.410

ALLELE: HLA-B*5103				
Threshold for 4 % with score: 9.280				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	NAHARHELI	509	15.940
QM	2	IGRGVARAI	148	13.720
QM	3	LPMSMAKGL	248	11.760
QM	4	LPDSHPQSA	257	10.410

ALLELE: HLA-B*5201				
Threshold for 4 % with score: 1.974				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	LAMARADVV	271	2.890
QM	2	AVETGRPVV	440	2.708
QM	3	RLPVTVVIL	470	1.974
QM	4	AIDRALDVL	205	1.887

ALLELE: HLA-B*5301				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RPVDPAPRL	191	1.000
ANNs+QM	2	LPMSMAKGL	248	1.000
ANNs+QM	3	LPDSHPQSA	257	1.000
ANNs+QM	4	HPMRFYNAL	374	1.000

ALLELE: HLA-B*5401				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	IPITDLARA	37	1.000
ANNs+QM	2	RPVDPAPRL	191	1.000
ANNs+QM	3	LPDSHPQSA	257	1.000
ANNs+QM	4	HPMRFYNAL	374	1.000

ALLELE: HLA-B*51				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RPVDPAPRL	191	1.000

ANNs+QM	2	LPMSMAKGL	248	1.000
ANNs+QM	3	HPMRFYNAL	374	0.990
ANNs+QM	4	TPTELESAL	530	0.990

ALLELE: HLA-B*5801				
Threshold for 4 % with score: -0.223				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RSASPCTVL	4	1.792
QM	2	MSALLEAAA	332	1.099
QM	3	ASAGNAAAA	60	0.693
QM	4	LTARPGVCL	72	0.693

ALLELE: HLA-B60				
Threshold for 4 % with score: 1.386				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	LESALTDAL	534	5.864
QM	2	VESGHLAKL	560	5.864
QM	3	NEGANALDL	399	5.768
QM	4	VEHTGIPFL	240	5.075

ALLELE: HLA-B61				
Threshold for 4 % with score: 0.000				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	HEASAGNAA	58	3.689
QM	2	VEHTGIPFL	240	2.773
QM	3	NEGANALDL	399	2.079
QM	4	LESALTDAL	534	2.079

ALLELE: HLA-B62				
Threshold for 4 % with score: 0.693				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	GVMGIGMGY	427	1.569
QM	2	HLVVDALKA	17	0.875
QM	3	RLPVTVVIL	470	0.875
QM	4	VLAQAQRPL	212	0.693

ALLELE: HLA-B7				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	IPITDLARA	37	1.000
ANNs+QM	2	SGPGFLNGL	83	1.000
ANNs+QM	3	RPVDPAPRL	191	1.000
ANNs+QM	4	APEAIDRAL	202	1.000

ALLELE: HLA-B*0702				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LTARPGVCL	72	1.000
ANNs+QM	2	RPVDPAPRL	191	1.000
ANNs+QM	3	LPMSMAKGL	248	1.000
ANNs+QM	4	HPMRFYNAL	374	1.000

ALLELE: HLA-B8				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	VSTPTELES	528	0.730

ANNs+QM	2	GIPITDLAR	36	0.720
ANNs+QM	3	YLDIPGDVL	168	0.700
ANNs+QM	4	NAAAAAGFL	64	0.680

ALLELE: HLA-Cw*0301				
Threshold for 4 % with score: 2.015				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	HPMRFYNAL	374	5.011
QM	2	LPMSMAKGL	248	3.178
QM	3	TVLTDGCHL	10	2.996
QM	4	GFLNGLPAL	86	2.996

ALLELE: HLA-Cw*0401				
Threshold for 4 % with score: 4.370				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	HPMRFYNAL	374	7.550
QM	2	VLAQAQRPL	212	6.430
QM	3	QSAAAARSL	263	6.310
QM	4	DPADGVESG	555	6.310

ALLELE: HLA-Cw*0602				
Threshold for 4 % with score: 1.482				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SGPGFLNGL	83	2.580
QM	2	APEAIDRAL	202	1.982
QM	3	LPMSMAKGL	248	1.982
QM	4	HPMRFYNAL	374	1.982

ALLELE: HLA-Cw*0702				
Threshold for 4 % with score: 1.212				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	HPMRFYNAL	374	2.156
QM	2	GVMGIGMGY	427	2.079
QM	3	DIGSVMSAL	327	1.751
QM	4	SGPGFLNGL	83	1.569

ALLELE: H2-Db				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	ASAGNAAAA	60	1.000
ANNs+QM	2	NEGANALDL	399	1.000
ANNs+QM	3	GFLNGLPAL	86	0.970
ANNs+QM	4	SAGNAAAAA	61	0.960

ALLELE: H2-Dd				
Threshold for 4 % with score: 11.800				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SGRPGGVYL	161	22.420
QM	2	SGPGFLNGL	83	19.940
QM	3	RLPVTVVIL	470	19.750
QM	4	IGRGVARAI	148	17.690

ALLELE: H2-Kb				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	SGPGFLNGL	83	1.000

ANNs+QM	2	HPMRFYNAL	374	1.000
ANNs+QM	3	ASAGNAAAA	60	0.980
ANNs+QM	4	VLAQAQRPL	212	0.950

ALLELE: H2-Kd				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	LTTSGPGFL	80	0.990
ANNs+QM	2	SGPGFLNGL	83	0.990
ANNs+QM	3	LPMSMAKGL	248	0.990
ANNs+QM	4	IYGVVGIPI	31	0.980

ALLELE: H2-Kk				
Threshold for 4 % with score: 1.609				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VEHTGIPFL	240	4.094
QM	2	LESALTDAL	534	3.689
QM	3	VESGHLAKL	560	3.401
QM	4	NEGANALDL	399	2.996

ALLELE: H2-Ld				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	RSASPCTVL	4	1.000
ANNs+QM	2	APEAIDRAL	202	1.000
ANNs+QM	3	LPMSMAKGL	248	1.000
ANNs+QM	4	QSAAAARSL	263	1.000

ALLELE: HLA-G

Threshold for 4 % with score: 9.260

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RLPVTVVIL	470	22.970
QM	2	VLAQAQRPL	212	14.180
QM	3	VVGIPITDL	34	14.110
QM	4	VLNAHARHE	507	13.400

ALLELE: H-2Qa

Threshold for 4 % with score: 6.000

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	IYGVVGIPI	31	10.950
QM	2	DIGSVMSAL	327	10.220
QM	3	LNAHARHEL	508	8.130
QM	4	TVLTDGCHL	10	8.090

ALLELE: HLA-B*2706

Threshold for 4 % with score: 5.000

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	SGPGFLNGL	83	10.490
QM	2	APEAIDRAL	202	6.940
QM	3	PRLPAPEA	197	6.800
QM	4	HPMRFYNAL	374	6.070

ALLELE: HLA-B35

Threshold for 4 % with score: 8.350

Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RPVDPAPRL	191	15.580

QM	2	HPMRFYNAL	374	15.420
QM	3	TVLTDGCHL	10	14.370
QM	4	TPTELESAL	530	12.480

ALLELE: Mamu-A*01				
Threshold for 4 % with score: 3.650				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	APEAIDRAL	202	6.580
QM	2	HPMRFYNAL	374	6.200
QM	3	VVGIPITDL	34	5.860
QM	4	NAHARHELI	509	5.150

ALLELE: HLA-A*0204				
Threshold for 4 % with score: 12.070				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	RLPVTVVIL	470	19.600
QM	2	YLDIPGDVL	168	19.390
QM	3	LNAHARHEL	508	15.890
QM	4	GCHLVVDAL	15	15.290

ALLELE: HLA-B*2703				
Threshold for 4 % with score: 5.130				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	FRHEASAGN	56	6.400
QM	2	RHDPAPTVL	500	6.030
QM	3	CRYRLPVTV	467	4.000
QM	4	LNAHARHEL	508	3.720

ALLELE: HLA-B*2704				
Threshold for 4 % with score: 8.790				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	VESGHLAKL	560	13.020
QM	2	LNAHARHEL	508	11.340
QM	3	GNAAAAAGF	63	10.670
QM	4	VVLLVGARL	278	10.400

ALLELE: HLA-B*2902				
Threshold for 4 % with score: 7.750				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	LESALTDAL	534	12.700
QM	2	DPADGVESG	555	9.650
QM	3	GCHLVVDAL	15	8.610
QM	4	SGRPGGVYL	161	8.060

ALLELE: HLA-A*3301				
Threshold for 4 % with score: 3.840				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	AARSLAMAR	267	3.830
QM	2	VLNAHARHE	507	3.380
QM	3	GNGESPQWS	291	2.160
QM	4	LNTTSAATP	568	1.670

ALLELE: HLA-B44				
Threshold for 4 % with score: 4.900				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
QM	1	NEGANALDL	399	10.120

QM	2	HEASAGNAA	58	7.310
QM	3	VESGHLAKL	560	7.070
QM	4	GNAAAAAGF	63	6.350

ALLELE: HLA-A*6801				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	PTVLNAHAR	505	0.990
ANNs+QM	2	QDIGRGVAR	146	0.970
ANNs+QM	3	HPQSAAAAR	261	0.960
ANNs+QM	4	VLAQAQRPL	212	0.950

ALLELE: HLA-A*6802				
Threshold for 4 % with score: 4				
Prediction method	Rank	Sequence	Residue No.	Peptide Score
ANNs+QM	1	GVMGIGMGY	427	1.000
ANNs+QM	2	NAAAAAGFL	64	0.990
ANNs+QM	3	LAMARADV	271	0.990
ANNs+QM	4	YLDIPGDVL	168	0.980