

# ABCpred Prediction Server

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## INPUT INFORMATION

Sequence name	
Length of the sequence	934
Number of 16mers from the input sequence	919
Threshold setting (Default value is 0.5)	0.51

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## TABULAR RESULT

### Predicted B-cell epitope

The predicted B cell epitopes are ranked according to their score obtained by trained recurrent neural network.

Higher score of the peptide means the higher probability to be as epitope.

All the peptides shown here are above the threshold value chosen.

Rank	Sequence	Start position	Score	
1	GGEADDAAERRLPHLTP	480	0.94	
1	SDPDAAPPTFSARLTA	230	0.94	
2	YARRPYPPFMTSTLQQ	299	0.93	
3	AGDTGEPTPQRANLSD	671	0.91	
3	PAKYKSQLPWARLGVNV	60	0.91	
3	ARTQARQLYGDEYVAP	358	0.91	
4	KPMVIKDGRFGPYVTD	865	0.90	
4	LDEIAAGNERRTNWLN	590	0.90	
4	AERRLPHLTPGQRLDI	486	0.90	
4	QQEASRKLRFSAERTM	313	0.90	
5	GRRVATGRDFDSLGLT	248	0.89	

6	RGPAKRPARKAARKVP	911	0.88	
6	ALKIYAEPKRRGRQSA	834	0.88	
6	HEIVAREGRFGPYVTE	719	0.88	
6	FYFGGDHGVPDSVARS	607	0.88	
6	YSSIIKTIQDRGYVHK	537	0.88	
6	RRELDGPNIDDFRLYE	406	0.88	
6	SGYIVESSRGHIRDLP	38	0.88	
6	NGYITYMRTDSTTLSE	337	0.88	
7	DGHATNPPARRYTEASL	507	0.87	
7	GMTLSLRITGMSGHQE	437	0.87	
7	ATRIIVARERDRMAFR	199	0.87	
7	YGYEVSPVLWKKVAPK	174	0.87	
8	RQSASAPPLRELGTDP	846	0.86	
9	RELGTDPASGKPMVIK	855	0.85	
9	QLYGDEYVAPAPRQYT	364	0.85	
9	LVIVESPTKARKLASY	20	0.85	
10	GVNVDADFEPLYIISP	72	0.84	
10	KGRGSGGNNGSGRRLVI	7	0.84	
10	LEGIDAREVNSIKLFD	633	0.84	
10	AGETFATPDAVRRELD	395	0.84	
10	ASAEEKPYARRPYPPF	292	0.84	
11	FGPYVTDGETNASLRK	874	0.83	
11	LGIGRPSTYSSIIKTI	529	0.83	
11	HEAIRPAGETFATPDA	389	0.83	
11	RAAAEHPRDLDDIDLVD	147	0.83	
12	PARKAARKVPAKKAAK	917	0.82	
12	EPLYIISPEKRSTVSE	80	0.82	
12	PRVVGVDPASGEEITA	787	0.82	
12	PRTGSLLRSMDLQTVT	761	0.82	
12	LDIVELTPDGHATNPP	499	0.82	
12	ILAKLDASVSDPDAAP	221	0.82	
13	GPYLKRGNDSRSLVTE	808	0.81	
13	GEEITAQNNGRYGPYLK	797	0.81	
13	DDTHGRPIYVRVGKNG	648	0.81	

13	SSRGHIRDLPRAASDV	44	0.81	
13	YELIWQRTVASQMADA	420	0.81	
14	TEDQIFTITLDEALKI	822	0.80	
15	DALRLLSLPRVVGVDP	779	0.79	
15	AEELFATPQQGRTLGL	698	0.79	
15	VETVDELVGGEADDAE	472	0.79	
15	SATALAAGLDGTQLTV	276	0.79	
15	FHEITEPAIRAAAEHP	138	0.79	
16	HGPDSVARSGGLKKL	613	0.78	
16	GRTLTFPGFLKAYVET	459	0.78	
16	HQEVVFSATGRTLTFF	450	0.78	
16	TMSIAQRLYENGYITY	327	0.78	
17	DLPRAASDVPAKYKSQ	51	0.77	
18	FGPYVTEILPEPAADA	728	0.76	
18	RVGKNGPYLERLVAGD	658	0.76	
18	TAAMEDELDEIAAGNE	583	0.76	
18	LVDYDFTAAMEDELDE	577	0.76	
18	ASLVKALEELGIGRPS	520	0.76	
18	APAPRQYTRKVKNQE	372	0.76	
18	ETRRILDRLYGYEVSP	165	0.76	
19	DDVASITDERAAELLA	891	0.75	
19	DGETNASLRKGDDVAS	880	0.75	
19	TVASQMADARGMTSL	427	0.75	
19	PPTFSARLTAVAGRRV	236	0.75	
19	AWHLLETLKPRIPVKR	120	0.75	
20	DERAAELLADRRARGP	898	0.74	
20	KRQKAAGPKPRTGSLL	752	0.74	
20	PRIPIVKRMVFHEITEP	129	0.74	
21	AVTGLLEQHFGRLVDY	565	0.73	
21	DRMAFRSAAYWDILAK	209	0.73	
22	SMDLQTVTLEDALRLL	769	0.71	
22	LSDSITPDELTLQVAE	684	0.71	
22	QPWARLGVNVDADFEP	66	0.71	
22	MRTDSTTLSESAINAA	343	0.71	

22	YLATDGDREGEIAIWH	107	0.71	
23	GRTLGLDPETGHEIVA	708	0.70	
23	PARYTEASLVKALEEL	514	0.70	
23	IDLVDAQETRRILDRDRL	158	0.70	
24	AAAAAQGVKKRQKAAGP	744	0.69	
25	LRKGDEVIVLDEGSAT	263	0.68	
26	PKLSAGRVQSVATRII	188	0.66	
27	PGFLKAYVETVDELVG	465	0.65	
28	LWKKVAPKLSAGRQVS	182	0.62	
29	SPEKRSTVSELRGLLK	86	0.59	
29	KGSALVPSWVAFAVTG	553	0.59	
30	PEPAADAAAAAQGVKK	737	0.58	
31	REVNSIKLFDDTHGRP	639	0.57	
31	QDRGYVHKKGSAVPS	545	0.57	
32	SELRGLLKDVEDLYLA	94	0.54	
32	PDELTLQVAEELFATP	690	0.54	
33	GNERRTNWLNNFYFGG	596	0.53	

## OVERLAP DISPLAY

LADPKTKGRGGNGSGRRLVIVESPTKARKLASYLGSGYIVESSRGHIDLPRAASDVPAKYKSQPWARLGVNVDADFEPLY  
 IIISPEKRSTVSELRGLLKDVEDLYLATDGDREGEIAIWHLETLKPRIPVKRMVFHEITEPAIRAAEHPRDLDIDLVDAQET  
 RRILDLRLYGYEVSPVLWKKVAPKLSAGRQSVATRIIIVARERDRMAFRSAAYWDILAKLDASVSDPDAAPPTFSARLTAVAGR  
 RVATGRDFDSLGLTSLRKDEVIVLDEGSATALAAGLDGTQLTVASAEEKPYARRPPYPPFMTSTLQQEASRKLRFSAERTMSIAQ  
 RLYENGYITYMRTDSTTLSESAINAARTQARQLYGDEYVAPAPRQYTRKVKNQAQEAEHAIRPAGETFATPDAVRRELDGPNIID  
 DFRLYELIWQRTVASQMDARGMTLSLRITGMSGHQEVVFSATGRTLTFPGLKAYVETVDELVGGEADDAERRLPHLTPGQR  
 LDIVELTPDGHATNPPARYTEASLVKALEELGIGRPSTYSSIICKTIQDRGYVHKKGSAVPSWVAFAVTGLLEQHFGRILVDYD  
 FTAAMEDELDEIAAGNERRTNWLNNFYFGGDHGVPDSVARSGGLKKLVGINLEGIDAREVNSIKLFDDTHGRPIYVRVGKNGPY  
 YLERLVAGDTGEPTPQRANLSDSITPDELTLQVAEELFATPQQGRTLGLDPETGHEIVAREGRFGPYVTEILPEPAADAAAAA  
 QGVKKRQKAAGPKPRTGSLLRSMDLQTVTLEDALRLSLPRVVGVDPASGEEITAQNNGRYGPYLKRGNDRSRSLVTEDQIFTIT  
 LDEALKIYAEPKRRGRQSASAPPLRELGTDPASGKPMVIKDGRCGPYVTDGETNASLRKGDDVASITDERAAELLADRARGPA  
 AKRPARKAARKVPAKKAKR<sup>934</sup>

GGEADDAERRLPHLTP

SDPDAAPPTFSARLTA

YARRPYPPFMTSTLQQ

AGDTGEPTPQRANLSD

PAKYKSQPWARLGVN

ARTQARQLYGDEYVAP

KPMVIKDGRFGPYVTD

LDEIAAGNERRTNWLN

AERRLPHLTPGQRLDI

QQEASRKLRFSAERTM

GRRVATGRDFDSLGLT

RGPAKRPARKAARKVP

ALKIYAEPKRRGRQSA

## HEIVAREGRFGPYVTE

FYFGGDHGVPDSVARS

YSSIIKTIQDRGYVHK

RRELDGPNIIDFRLYE

SGYIVESSRGHIRDLPE

NGYITYMRTDSTTLSE

DGHATNPPARYTEASL

GMTLSLRITGMSGHQE

## ATRIIVARERDRMAFR.

YGYEVSPVLWKKVAPK

RQSASAPPLRELGTDPM

RELGTDPASGKPMVIK-

QLYGDEYVAPAPRQYT-

## LVIVESPTKARKLASY-

GVNVDADFEPLYIISP-

KGRGSGGNGSGRRLVI-

LEGIDAREVNSIKLFD

AGETFATPDAVRRELD

ASAEEKPYARRPYPPF

FGPYVTDGETNASLRK

LGIGRPSTYSSIIKTI

HEAIRPAGETFATPDA

RAAAEHPRDLDIDLVD

PARKAARKVPAKKAAK

EPLYIISPEKRSTVSE

PRVVGVDPASGEEITA

PRTGSLLRSMDILQTVT

LDIVELTPDGHATNPP

ILAKLDASVSDPDAAP

GPYLKRGNDSRSLVTE

GEEITAQNNGRYGPYLK

DDTHGRPIYVRVGKNG

SSRGHIRDLPRAASDV

YELIWQRTVASQMADA

TEDQIFTITLDEALKI

DALRLLSLPRVVGVDP

AEELFATPQQGRTLGL

VETVDELVGGEADDAE

SATALAAGLDGTQLTV

FHEITEPAIRAAAEHP

HGVPDSVARSGGLKKL

GRTLT<sup>F</sup>PGFLKAYVET

HQEVVFSATGRTLT<sup>F</sup>P

TMSIAQR<sup>L</sup>YENGYITY

DLPRAASDVPAKYKSQ

FGPYVTEILPEPAADA

RVGKNGPYLERLIVAGD

TAAMEDELDEIAAGNE

LVDYDFTAAMEDELDE

ASLVKALEELGIGRPS

APAPRQYTRKVKNAGE

ETRRILDRLYGYEVSP

DDVASITDERAELLA

DGETNASLRKGDDVAS

TVASQMADARGMTSL

PPTFSARLTAVAGRRV

AWHLLETLKPRIPVKR

DERAAELLADRRARGP

KRQKAAGPKPRTGSLL

PRIPIVKRMVFHEITEP

AVTGLLEQHFGRLVDY

DRMAFRSAAYWDILAK

SMDLQTVTLEDALRLL

LSDSITPDETLQVAE

QPWARLGVNVDADFEP

MRTDSTTSESAINAA

YLATDGDREGEIAWH

GRTLGLDPETGHEIVA

PARYTEASLVKALEEL

IDLVDAQETRRILDRL

AAAAQGVKKRQKAAGP

LRKGDEVIVLDEGSAT

PKLSAGRQSVATRII

PGFLKAYVETVDELVG

LWKKVAPKLSAGRQVS

SPEKRSTVSELRGLLK

KGSALVPSWVAFAVTG

PEPAADAAAAAQGVKK

REVNSIKLFDDTHGRP

QDRGYVHKKGSAVPS

SELRGLLKDVDELYLA

PDETLQVAEELFATP

GNERRTNWLNNFYFGG