ABCpred Prediction Server

Sequence name	
Length of the sequence	510
Number of 16mers from the input sequence	495
Threshold setting (Default value is 0.5)	0.51

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	AALTAAPPVSRHRMQV	333	0.93	
2	QAEVRLGVCGDHQVTN	298	0.91	
3	TVAQIAEIVGGAVADI	5	0.89	
3	WGSGEATADHGADRTA	444	0.89	
3	DAYNANPDSMRAGLQA	360	0.89	
3	RGDGVTVIDDAYNANP	351	0.89	
3	VVRVSRDNTGDVWAGP	264	0.89	
3	AELPQAVPHSGAVVLN	232	0.89	
4	HRRVTGTVEFDSRAIG	27	0.88	
5	SGKTSTKDLMAAVLAP	138	0.87	
5	GGLTIIGITGSSGKTS	127	0.87	

6	TGRSISAMHHGAVLEG	427	0.86
6	LILEMAARHHGNIAAL	184	0.86
7	AKLTAARVVRVSRDNT	257	0.85
7	DISPQDAAHRRVTGTV	19	0.85
8	TGDVWAGPVSLDELAR	272	0.84
8	ALAEIAPPSIGVVLNV	198	0.84
9	AMHHGAVLEGAWGSGE	433	0.83
9	GEMAELGEDAIAEHDR	394	0.83
9	GEVVAPPGSFNNELGH	155	0.83
10	CGASVEQVAAALTAAP	324	0.82
11	TRRSWAVLGEMAELGE	386	0.81
12	LGAVADALVADDTCGS	492	0.80
12	ALAWIAHQPEATRRSW	375	0.80
12	RMQVTTRGDGVTVIDD	345	0.80
13	AHLGEFGSREVIAQTK	216	0.79
14	VPAIVVPPVAAPNVLA	80	0.78
15	SRAIGPGGLFLALPGA	38	0.77
15	GVCGDHQVTNALCAAA	304	0.77
16	GVLEHDNDGSGAAVLA	96	0.76
17	VVLAARPVGVPAIVVP	71	0.75
17	VVLVKASNAAGLGAVA	481	0.75
17	SLDELARPRFTLHAHD	281	0.75
18	ELGHPWTVLRATRRTD	167	0.73
18	DGSGAAVLAALAKLAT	103	0.73
19	DRTAVNVADGDAALAL	456	0.72
20	HDHAASAVAAGAAVVL	58	0.71
21	GARADGHDHAASAVAA	52	0.70
21	TADHGADRTAVNVADG	450	0.70
22	REVIAQTKAELPQAVP	224	0.69
23	AVVLNADDPAVAAMAK	243	0.68
24	EDAIAEHDRIGRLAVR	401	0.67
24	LCAAAVALECGASVEQ	315	0.67
24	LMAAVLAPLGEVVAPP	146	0.67
25	LHAHDAQAEVRLGVCG	292	0.65

26	ALLRAELRPGDVVLVK	470	0.64	
26	PSIGVVLNVGTAHLGE	205	0.64	
26	HHGNIAALAEIAPPSI	192	0.64	
27	LATAVAAQLVAGGLTI	116	0.63	
28	TVLRATRRTDYLILEM	173	0.62	
29	DRIGRLAVRLDVSRLV	408	0.61	
30	PGSFNNELGHPWTVLR	161	0.59	
31	AVAAGAAVVLAARPVG	64	0.58	
32	ADGDAALALLRAELRP	463	0.55	
33	PVAAPNVLAGVLEHDN	87	0.54	

OVERLAP DISPLAY

```
MIELTVAQIAEIVGGAVADISPQDAAHRRVTGTVEFDSRAIGPGGLFLALPGARADGHDHAASAVAAGAAVVLAARPVGVPAI
VVPPVAAPNVLAGVLEHDNDGSGAAVLAALAKLATAVAAQLVAGGLTIIGITGSSGKTSTKDLMAAVLAPLGEVVAPPGSFNN
ELGHPWTVLRATRRTDYLILEMAARHHGNIAALAEIAPPSIGVVLNVGTAHLGEFGSREVIAQTKAELPQAVPHSGAVVLNAD
DPAVAAMAKLTAARVVRVSRDNTGDVWAGPVSLDELARPRFTLHAHDAQAEVRLGVCGDHQVTNALCAAAVALECGASVEQVA
AALTAAPPVSRHRMQVTTRGDGVTVIDDAYNANPDSMRAGLQALAWIAHQPEATRRSWAVLGEMAELGEDAIAEHDRIGRLAV
RLDVSRLVVVGTGRSISAMHHGAVLEGAWGSGEATADHGADRTAVNVADGDAALALLRAELRPGDVVLVKASNAAGLGAVADA
LVADDTCGSVRP$^{510}$
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
AALTAAPPVSRHRMQV----------------------------------------------------------------
--------------------------------------------------------------------------------
-----------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------
QAEVRLGVCGDHQVTN----------------------------------------------------------------
--------------------------------------------------------------------------------
------------------------------------------------
----
TVAQIAEIVGGAVADI----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------
WGSGEATADHGADRTA----------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-------------------------
DAYNANPDSMRAGLQA----------------------------------------------------------------
------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
------------------
RGDGVTVIDDAYNANP----------------------------------------------------------------
-----------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------
VVRVSRDNTGDVWAGP----------------------------------------------------------------
-------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------------------------------------------------
AELPQAVPHSGAVVLN----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
---------------------------------
------------------------
HRRVTGTVEFDSRAIG----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------------------------------
--------------------------------------------------
SGKTSTKDLMAAVLAP----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------
-------------------------------------------
GGLTIIGITGSSGKTS----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
```

```
-----------
TGRSISAMHHGAVLEG---------------------------------------------------------
-
-------------------------------------------------------------------------
-------------------------------------------------------------------------
----------------
LILEMAARHHGNIAAL---------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------
AKLTAARVVRVSRDNT---------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-----
-----------------
DISPQDAAHRRVTGTV---------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
--------------------
TGDVWAGPVSLDELAR---------------------------------------------------------
-------------------------------------------------------------------------
------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
------------------------------
ALAEIAPPSIGVVLNV---------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-----------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
----------------
AMHHGAVLEGAWGSGE--------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------
GEMAELGEDAIAEHDR---------------------------------------------------------
-------------------------------
-------------------------------------------------------------------------
------------------------------------------------------------------------
GEVVAPPGSFNNELGH---------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-------------------------------------------------------------------------
```

```
-----------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------------------------------------
CGASVEQVAAALTAAP-----------------------------------------------------------------
--------------------------------------------------------------------------------
-------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------------------------
TRRSWAVLGEMAELGE-----------------------------------------------------------------
--------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
------------------------------------------------------------------
LGAVADALVADDTCGS---
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------
ALAWIAHQPEATRRSW-----------------------------------------------------------------
----------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
------------
RMQVTTRGDGVTVIDD-----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------------------------------------
AHLGEFGSREVIAQTK-----------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------------
---------------------------------------------------------------------------
VPAIVVPPVAAPNVLA-----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------
-----------------------------------------
SRAIGPGGLFLALPGA-----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
```

```
----------------------------------------------------------------------------
------------------------------------------------------
GVCGDHQVTNALCAAA-----------------------------------------------------------
----------------------------------------------------------------------------
-------------------------------------------
----------------------------------------------------------------------------
------------
GVLEHDNDGSGAAVLA-----------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------
VVLAARPVGVPAIVVP-----------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
-----------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
-------------------------------------------------------------
VVLVKASNAAGLGAVA--------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
------------------------------
SLDELARPRFTLHAHD-----------------------------------------------------------
----------------------------------------------------------------------------
--------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
ELGHPWTVLRATRRTD-----------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
------------
-------------------
DGSGAAVLAALAKLAT-----------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
-----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
------------------------------------------
DRTAVNVADGDAALAL---------------------------------------
-----------------------------------------------------------
HDHAASAVAAGAAVVL-----------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
----------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
--------------------------------------
-------------------------------------------------
GARADGHDHAASAVAA----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------
TADHGADRTAVNVADG----------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------
REVIAQTKAELPQAVP----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-------------------------------------------------------------------
AVVLNADDPAVAAMAK----------------------------------------------------------------
--------------------------------------------------------------------------------
------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-----------------------------------------------------------------
EDAIAEHDRIGRLAVR----------------------------------------------------------------
--------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------
LCAAAVALECGASVEQ----------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------------
--------------------------------------------------------------------------------
----------------------------------------------------------------
LMAAVLAPLGEVVAPP----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
-------------------------------------------
LHAHDAQAEVRLGVCG----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------
--------------------------------------------------------------------------------
```

```
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------
ALLRAELRPGDVVLVK------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
-------------------------------------
PSIGVVLNVGTAHLGE--------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
-----------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------
HHGNIAALAEIAPPSI--------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
-------------------------------------------------------------------
------------------------------------------------------------------------------
-----------------------------
LATAVAAQLVAGGLTI--------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
----------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------
TVLRATRRTDYLILEM--------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
----------------------------------------------------------------------
DRIGRLAVRLDVSRLV--------------------------------------------------------------
--------------------
------------------------------------------------------------------------------
--------------------------------------------------------------------
PGSFNNELGHPWTVLR--------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------
-----------------------------------------------------------------
AVAAGAAVVLAARPVG--------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
-------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----------------------------------------------
ADGDAALALLRAELRP--------------------------------
--------------------------------------------------------------------------------
---
PVAAPNVLAGVLEHDN----------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
---------
```