

BCIgEPRED – A DUAL-LAYER APPROACH FOR PREDICTING LINEAR IgE EPITOPES[#]

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Supplementary Table 1. Absolute discrepancy ratio of IgE and non-IgE epitopes (Nr_Dataset)

	A	C	D	E	F	G	H	I	K	L	M	N	P	Q	R	S	T	V	W	Y
A	0.29	1.07	0.09	0.4	15.02	10.11	1.87	1.61	0.06	0.85	11.14	1.51	0.72	2.11	1.46	1.16	10.42	1.07	8.71	1.19
C	0.87	0.25	0.76	0.18	1.32	1.12	0.81	0.87	0.05	0.89	0.89	1.88	1.35	1.03	0.69	0.17	1.06	0.89	1.88	0.74
D	0.31	1.99	1.1	1.65	0.24	0.57	1.97	1.02	1.45	57.23	15.69	0.94	0.32	1.52	0.41	70.18	0.93	0.31	0.64	0.26
E	1.35	0.19	1.28	1.86	2.25	2.24	36.17	0.76	0.91	4.94	0.01	1.13	2.3	3.78	0.48	1.05	0.92	3.5	1.13	2.48
F	1.33	0.12	1.21	0.45	0.67	0.28	3.18	3.24	0.98	1.25	1.22	1.45	16.87	0.04	1.56	0.86	1.84	0.57	4.81	14.55
G	1.69	1.05	1.68	0.07	12.71	0.27	1.59	1.01	0.91	1.08	3.1	3.3	1.48	1.27	1.74	1.88	0.25	1.15	7.68	0.27
H	1.01	0.6	0.37	2.52	94.93	1.95	3.26	1.19	0.13	2.14	1.42	2.1	2.44	0.01	1.4	1.32	1.06	0.93	11.04	11.87
I	0.83	0.86	0.36	0.01	2.35	1.68	0.9	1.9	0.35	1.27	0.54	1.94	2.24	5.23	1.11	0.55	2.25	0.07	3.2	4.41
K	0.73	0.75	0.81	1.73	1.51	2.45	1.5	2.47	0.93	1.02	0.2	0.07	0.42	0.37	2.37	3.25	1.69	1.32	4.33	2.15
L	1.58	0.33	0.72	5.42	0.93	2.34	1.65	1.39	0.18	1.32	0.08	0.97	4.35	12.27	1.1	1.69	2.21	1.19	2.16	0.88
M	8.46	0.35	0.51	0.51	0.76	2.79	2.22	0.62	1.13	2.2	0.18	0.28	1.92	0.61	1.74	2.06	23.1	2.16	1	3.22
N	1.51	0.33	0.15	3.3	0.11	0.42	1.19	0.28	1.13	0.59	0.51	1.09	0.19	1.55	0.87	9.76	0.12	6.69	0.69	0.71
P	0.09	0.73	0.64	2.08	7.88	0.49	2.38	1.99	0.52	2.75	7.35	0.2	0.19	8.23	1.55	4.16	12.07	1.64	0.22	6.6
Q	0.09	0.98	0.77	2.28	7.83	1.29	0.3	7.61	1.66	29.09	1.3	0.27	4.52	13.75	0.12	5.1	0.48	9.63	0.97	1.97
R	0.94	0.26	1.32	0.87	1.17	0.78	1.36	1.12	1.39	1.15	2.11	1.08	1.41	0.41	1.26	1.19	1.49	1.53	0.7	1.04
S	1.41	1.1	1.04	0.92	3.35	1.97	1.27	1.01	5.83	1.82	14.61	1.37	0.77	1.21	0.88	1.34	1.03	1.14	0.61	0.06
T	2.58	1.64	29.71	0.03	9.75	5.26	1.57	2.59	0.54	2.27	15.93	0.16	0.06	0.17	1.31	1.74	1.37	1.45	4.49	0.72
V	1.97	0.6	4.15	2.88	0.15	2.24	1.12	1.79	0.75	0.74	0.66	1.39	1.55	1.03	0.94	1.46	3.05	1.62	2.03	0.29
W	0.64	1.25	5.79	1.01	1.41	1.85	1.45	5.83	0.54	19.06	0.63	0.35	20.71	1.72	1.31	3.25	3.35	1.02	0.09	0.51
Y	1.13	0.31	2.87	0.08	0.45	1.22	3.36	1.17	0.3	0.39	2.36	0.52	4.54	2.78	1.45	1.33	0.89	0.76	0.91	4.51

Supplementary Text

IgE Ind_Set_1

TNDKFTVFESAF
YGWTAFCGPV
NATQRRQIEA
YLWSAFTPPP
GNEVMTY
SEEEGDITNPINLRE
EQQTEDELQ
ECLLCAHKVE
QQQLPQQF
ATQRRQIEAG
NCHTHEGGQL
QQPQLPQQ
IVDQCSNGGL
AASAYCSTWD
CRKELAAVSV
HISGRPL
KDSKSRGAT
VLGPVRGPPF
YNGSGIV
NDRPHMP
KYKSITDE
LAAVSVDCSE
KSLNSTI
VKNLHNQARS
REFSPRGQHSRRERA
LNENLLRFFVAPFPEVFGKE
HQQQLPQQF
ITNPINLREGEPLDLS
TNTFWASDLM
STIMSSR
SPILAHY
SPQQSFSYQQ
AGISYTKTW
HAGFVPS
LEGWGGHWRG
QGDRRCQSQLERANL
QPRREEGGRWGPAGP
LCAYSIEFGT
NNFGKLFVVKPDKKN
GSAFSAF
QYFALEAYAF
YLGYLEQLLRLKKYKVPQLE
QQPIPVPQQ
CSPDHNCQSN
LKCGVNLPYT
CGDSFNPLFS
DCGDSFNPLF
EVDDEALEKF
FPQQSPQQ
GVQEGAKALY
RTPEVDDEALE
MSNIPQEQW
TPQQQFPEQS
EFGAMIKA
AFNRASD
STVATLEDSP
GGLEPINFQT
GRQPGDYDDRRQPR
NEAPRHA

QQSEQIIPQQ
QSAPLRVYVE
TPGQCNMIVE
DISRGLF
DFDCSKIQST
FEHFRECCNE
GFKAAVAAAANA
HSILSNL
TGKMLAD
HASARQQWEL
HKARLERPQI
VLPGSKS
RIQLLEEDLER
FPLQPQQPFP
AWYYVPLGTQ
LIRALFGL
ASVDKRHDGG
LQCVGS
LMCDIDGNRL
GLKGEQGEPGA
QARSQSDRQS
YLMEVQK
DLMHRLYHVP
MCDIDGQGEEL
THEGGQLHCT
KLEYPKCVYDPRGH
NLARTTPDRQ
LEYVNSGTKYLP
NTDTTRE
ACCRSIP
NKPYSWRSKY
HSMKEGIHAQQKEPMIGVNQ
QSKVLPVPQK
LPGCRK
TSKASELAV
FDQRSRQFQNLQNH
QQFKRELRNLPQQCG
DCCQQL
QTQQPQQPFP
LFRQFYQLDA
WVDHFADGYD
GEQEWGTPGSHVREE
LQQQLVPQLQ
QQPIQQPQQ
REGKEV
FSTNFGN
DIQKVAGTWY
LDIVDAP
LRNLPQQCGLRAPQR
ATAANAAPTNDK
SSYLQGF SRNTLEAA
WAVKDSKSR
INKVVRFD
KPWIQPKTKV
ENHVHVR
AMSHSKQ
QQSPQQQFP
GTGNLELVAV
ATYHLYNSQD
DLEILLQKWE
QFVDCGDSFN
EPDKSII
PFVQGKEKEP

DHFADGYDEV
PVVPPFLQP
EQQQFPQQF
LKKPKDRNDLI
SIPYKISAST
HLVEKGY
LPQQQIPQQP
CAHKVEQGAS
KPCEQHIMQRI
EERGQRRWSTRSSEN
SPQRMQAFNYS
VRVPVPQLQP
DNYDSTA
IAGFKGEQGPK
FARANRGL
SGPWSW
GKEKEPSKGC
LQDKIHPFAQ
RQPREDWRRPSHQQP

Non-IgE Ind_Set_1

GVLSVVAAGNE
NAKATYEAAAL
HDQTLPGGVRLH
IIINSCTV
SSWSDH
EWESTYSILG
KSLSSTEFIPN
RGRRQPIPKA
LTERYGG
KSRKASKAKKVKRSK
NSTQMRI
ENGEWAIDFCPGVIR
LDWLWEWAEQ
TASDPYSDFE
QWKAEFHRWS
KRLHQWINED
KLDLYGKVH
DLLEDT
LRPTFDTRLRLEDEMKEGR
FNQNPRES
KDAERAWEVD
SPNWLAH
ANQSLPDRLYKS
DFDSVPQIHG
GWVAMHPQGDL
TTGNAAAPSTL
KIKKDELKKS
RALSMPP
DNKYLPK
YDWLMF
SAPSSKN
FPYELLMQG
ARRPEGRT
TLIKELKRLGI
IKNQLAELNA
DIRVEE
KLQKNGADLA
AVWQMMWVEY
MDRPRTPPPSYSE
VEDIKCSAGQ
NYPMDH

QTDRED
MGPPIGLPPAR
GGIYQDLVS
GAHGDTTFEY
EELTPGRFRT
LNWNPF
GMPLLATGTS
AAFSELPLG
TPLGPPDAEYW
ASSDSSNTE
SMVGPED
RQRLEL
LQNDPT
CSPRTG
TGEDPGFFNV
AEETKTEE
LPSWHRF
ENTIINPSEN
APGMRPPMG
KLEAFWHKH
NQMIITM
NSWIASFGG
VTLYLG
RREiSELRTK
SGPISKY
DVNKSAQL
AHIWVND
NLTEPSAQL
AGPPGPVG
NKTQNPNL
FKQFKKDTLPT
TQSLASL
WYYKPPA
QSILPFP
VLDVNAIDIE
CSRTVKKNIIEEN
NGCGLFGK
EASNCF
FENNNYYFNENGEMQFGYINI
PAAFAFL
VLWVVKSTPA
YSFRD
IQDTRNAVRASRIQY
NVTTNQTIQ
MHLTTNI
PPSDIKGK
LLQSDPF
KWNPDYGGVK
LRSPIERKNAV
RRHFLDQRQ
DVLQIAS
EEMRHVV
IFLLALLSCL
EDEVVSSDFVG
GYQSSS
ERILTIS
TKLKGESGY
FLFDGSPTYV
VESKINVEVH
IVATNWQKL
SAPRQAD
PPAQPLSE
KLESHKFD

YQHKEGRF
FDWQNC
QVWIPPLNVR
STVKAGDLEKIIISRC
CAVFVRDQSV
QSLSVPR
LLPDSVI
KQVTIRIGCKTSSS
DISAFAD
SGKLEEFVQ
EDWGTP
TYRGFTSL
KPPKYHPDVP
VNIPFVRL
EEKELLKRIQ
PARDQKL
HPLRHRP
LENLMWKQI
HSHHTLTPDPPL
KQISSQLTEEWS
KSLSTLSY
STLPYLPTYSKH
NGDGNPREVIED
SFYSSYIQTLTVAQ
NWRFHDT
WIKENF
PANCPKS
IDFTGKLIID
ENMTPQD
SSDLLFSQKF
EESGPSRLNN
METMKLMMEKVD
TAMARSA
TFVERDRK
VFDEAKKT
MRPDNAK
TSLNLQKDEPN
AEFHRWSSYM
WPVKPR
AMELVGKTLA
SYAAVAS
EGGRDSCQ
KQDPPSL
GPPMRPPA
VFDSLQL
TWRIPSRKRR
QDEMNVIDDVQQ
PRIMHHMP
TKTHYHA
GMVDGWYG
LSSKAV
HRVMYASSGI
KTSERSQPRG
PGERGAPG
RFLMKLSH
RLNEAVKYTG
AYWGQGT
FHRHPL
NAKTKPR
GAPGTPGPQG
GERAKRS
ERADLIAYLKKATNE
SIVTAPFQVK

NSRGEKVPFA
CLEASYFRC
FGEVFNAT
QTIGNAKPLGRV
GPKRIRTGDR
IAQPKS
GIPDGWP
LRRVIGD
WTEVSEVATEV
KVGDPLW
QRFEDI
PDGAAAGGG
IPKDVLEIYS
SSLRQDGKTF
PQQQLTAYHVSTAPTGSWFSAP
DWVSLWKGFSF
TCSMFVYGGC
GKLPWPK
QVNNPKEWLQV
HAFCHEEG
NPTGPASV
EKGGRK
WQTPSPQ
ASALEEEEE
RFADIDTVIHA
HDKPPDLSMQRL
YEENLGDSIV
LNFPPS
QAPLPCVLWPVLPEPLPQQQLT
ESMPALS
KFKGKATL
NANADPN
MLKSLDNL
SAFSPTHYK
CAQTDHRHLS
YSNVTGFHT
SPGQRV
WHQVSLT
GDTRPRFL
FHLPWMQ
APRRLFDIA
QKVGPSGAPG
PTHYISSRH
AGRPK
STLPQV
KLPLYISNPN
VSSATNALRSM
LIKSLSDSD
IITFKSGATF
NFSISI
GNIVDIDFDS
NYLVDGNGRF
KLTRAEAV
MPFEK
ERSRERDKER
VKAKVQP
NSSPYLNTK
RFDKGYISGY
LTAENTAI
YFLHWWYDKK
GIASRITQIK
SSRISYWTIVKP
EELQKREE

GPGTWRT
YSLFQKEKMVL
EYVLLLFLL
LMLLRQSPTPH
AIAWHQQ
KRNVIIRII
DYHLKPC
KDYKTMVKFCN
CADVSQPVC
TKIDKLCVWN
QLDTDGKGYE
LQELEKDEREQ
SLYSFPEPEA
LEVPAEGDP
EKDKGLQTSQ
CRRHNYGFWVC
NLNEIKKD
SQKRIRVA
GASVKVT
KSGSSSDN
AQGHRPQDEN
HFHHTIW
DIQEEITRHE
MANTGAMELV
MNKVYLP
SAQSLTL
FSAEETM
DIERRIAMRL
WFTSWERDWW
TSHHDSHGLHRV
MLHTSM
NYLAWYQ
YYDGRRS
KEERRRSRER
YFEPGPT
NAASIAGLFL
KHYFDDSGVMK
EVHGNAEVHASFFDIGGSVSAGFS
PYHQLTHGS
GLAGPVRGVG
EANNREGVEG
DGEERQSYWFEN
SISFWTL
TNTEKLPTPIE
VEGTSFLT
FIDSYICQV
ILLNQLAGR
EVINDRYDML
GLPLK
FKLEKEVAE
SIQTKFAP
SVADLQQRYNTVYFG
FLISLIFIYE
NTSTSRTHTS
KTAISPT
TKQPVLDFS
DNFTVTTSL
VDLMTIRSCR
IRMARPT
DPLKIKRVHA
CKYWLSRC
SKAVNH
NLSSSWT

GVPPLRVWR
VNEKWIIVT
DFESCDSITGM
TWFGAYA
KKGKKKDP
QFPLGGV
LSVPNPLGFFPD
MLGTAEKVRV
GQQGLNGDS
GQKGRGSRG
HSYTLMF
AWGDK
AMFTCK
DKALKALPMH
NQTQHSV
LASLPFR
FPGCRRGD
YWEGSGIGAI
RVRVSWSP
GAVVALSTTFA
SDSHVGKLSLAH
GLPGERGR
ASIAGMFLTT
RWNPADYGGIK
AKHDLDIKPT
DVLLLNTR
HSSRQVTPLSL
EAHREVINSS
GETRK
CHAWSNRRTC
SYEFRHH
EGRLLKKLQ
FVPSMQ
QPGHLA
STNDNIKDLLD
VTSRGNV
AEKAA
ASKAKARPV
NDSSSHLQ
HSMVDR
GHEAQPH
VNLTLTGDV
YRWLPPSSA
EIRNLALQTL
QELPPPNAQEL
GSGSGTD
VVIVGHIEL
KTVDH
KAKGQPR
EIIGFGQELKNPQEE
PGPSRAHFL
LPAPTS
GLTSLFT
KEPAPTTT
YNSRSYWT
QLNPKDNDVEL
GHTSLR
ICLAVLWVVK
VPRAQGFL
QKSCEPAV
IPEEIKQLQQFQKEDAA
FDPFGWS
PTTTPLK

CVWNNKTPNS
CHAVKVGNPSC
SPHFFNQIR
GWGQLFQ
QLQPFQPPQ
AAPARRTRKPQQPESLEECDSE
IFIEME
EDKGPQDPQA
ASAACR
KWNEANR
MSPRATI
GRVSARGCTFVACWKGVVG
LLDYGWLMMW
TPDPRIGF
PVGWPTN
YMSVNV
PLLLLTDVT
WTYSPIA
IYTKVSR
DRDLQTGGI
KRLRLALAS
RNPSDK
QKTYMVVDVT
GGADVSPKP
EIYPWYMAERS
VKYTS
VDEKKK
SYLSLTP
HQPTAA
EPQVTLPPSR
FTINLHSC
KNQATKEQYE
SWPLYDASGLG
EDLAVYF
LSFPTQA
SRLPLSQPSPNS
KHARTSE
ITEHEGEIGK
KFPEDFESC
LGYTDRIG
IYQCCD
FQGQRDAADP
MTAEPKTIVL
WIRNNF
GAMEKSQRQQ
VTPIDT
DTVGAGNGMRRRC
PESWHTRWDE
RDGAENEIQT
DPPYVCLPGA
DWRHFMES
IPNGTYRATY
INPTS
IKIWTRKASLAM
RRRVRNSDT
VITGSI
NQTIQRDKV
ADAPQGFYVL
NGRGEGTVL
SSIIDILLPPIY
AFPVAVT
QVLMMP
GDSQATYNY

GRKHKENVKD
LKLAT
CSSGPIAPC
FTNETLDKIQ
NITQEAF
NNSFEKVKQ
VNSHGWIH
DRNGTHLDA
RVGRNPKNEN
GIDWLYC
DGSHTRG
HGTITGVDVSMNTHL
KVSFFCKNKEKKCSY
CNASTSMQC
HSSHRLS
YISGYFVTDP
YHWKVFYKYD
YPEVIVLDANYINEK
CTFVPRRKAG
EASSTNKP
FPLHLGV
RAVTPLGPPAA
KLPENQTRVAFFYDR
FGQNRANPQLPP
MDPELRGLAQ
ATPEKEEP
VPLPLLRSK
ILDTSNPVK
GMLDIFAPIRHV
AFSYHIH
MDPNLPN
CFPYCYPSESA
SLITAARGAPS
FHSTSSEGN
SGDEDVDSDEL
THDWLWEWAS
RHYKQYQFHF
SFFVKDWPER
DLGQAKRVVIN
WILFFLD
VTFCKCDSTLRRCVQ
RFAPQ
GITKPAIRRLARRGG
YNDKDLLG
HDSPSVRKTH
PLGLKRGIEK
WTPGVKRNGF
YLNRIHELL
ASRQAEVIA
TDQPLSAD

Ind_Set_1A - IgE

YLWSAFTPPP
GNEVMTY
QQQLPQQQF
ATQRRQIEAG
HISGRPL
KDSKSRGAT
YGNSGIV
NDRPHMP
KSLNSTI

VKNLHNQARS
HQQQLPQQQF
STIMSSR
SPILAHY
AGISYTKTW
HAGFVPS
QGDRRCQSQLERANL
LCAYSIEFGT
GSAFSAF
FPQQQSPQQQ
TPQQQFPEQS
EFGAMIKA
AFNRASD
STVATLEDSP
NEAPRHA
TPGQCNMIVE
DISRGLF
HSILSNL
TGKMLAD
VLPGSKS
FPLQPQQPFP
LIRALFGL
QARSQSDRQS
YLMEVQK
DLMHRLYHVP
KLEYPKCVYDPRGH
NTDTTRE
ACCRSIP
LPGCRK
TSKASELAV
QQFKRELRLNPQQCG
QQPIQQPQQ
FSTNFGN
LDIVDAP
LRNLPQQCGLRAPQR
INKVVRFD
ENHVHVR
AMSHSKQ
QQSPQQQFP
EPDKSII
EQQQFPQQF
LKKPKDRNDLI
HLVEKGY
LPQQQIPQQP
KPCEQHIMQRI
SPQRMQAFNYS
VRVPVQLQP
DNYDSTA
FARANRGL
SGPWSW
LQDKIHPFAQ

Ind_Set_1A - Non-IgE

GVLSVVAAGNE
HDQTLPGGVRHLH
IIINSCTV
EWESTYSILG
LTERYGG
NSTQMRI
ENGEWAIDFCPGVIR
LDWLWEWAEQ

TASDPYSDFE
KLDLYGKVH
LRPTFDTRLMRLEDEMKEGR
FNQNPRS
SPNWLAH
ANQSLPDRLYKS
GWVAMHPQGDL
TTGNAAAPSTL
RALSMPP
YDWLMF
SAPSSKN
FPYELLMQG
TLIKELKRLGI
IKNQLAELNA
AVWQWMWEY
MDRPRTPPPSYSE
VEDIKCSAGQ
NYPMDH
GGIYQDLVS
LNWNPF
GMPLLATGTS
AAFSELPLG
TPLGPPDAEYW
ASSDSSNTE
SMVGPED
RQRLEL
LPSWHRF
NQMIITM
NSWIASFGG
RREiSELRTK
SGPISKY
AHIWWND
NKTQNPNL
FKQFKKDTLPT
TQSLASL
WYYKPPA
QSILPFP
CSRTVKKNIIEEN
EASNCF
FENNNYYFNENGEMQFGYINI
PAAFAFL
YSFRD
IQDTRNAVRASRIQY
NVTTNQTIQ
MHLTTNI
PPSDIKGK
LLQSDPF
LRSPIERKNAV
RRHFLDQRQ
DVLQIAS
EEMRHVV
GYQSSS
VESKSINVEVH
SAPRQAD
STVKAGDLEKIISRC
CAVFVRDGQSV
QSLSVPR
LLPDSVI
DISAFAD
TYRGFTSL
VNIPFVRL
PARDQKL
HPLRHRP

HSHTLTPDPPL
KSLSTLSY
STLPYLPTYSKH
NWRFHDT
IDFTGKLIID
EESGPSRLNN
METMKLMMEKVD
TAMARSA
MRPDNAK
WPVKPR
SYAAVAS
KQDPPSL
TWRIPSRKRR
QDEMNVIDDVQQ
GMVDGWYG
HRVMYASSGI
AYWGQGT
FHRHPL
GAPGTPGPQG
GERAKRS
SIVTAPFQVK
CLEASYFRC
QTIGNAKPLGRV
GPKRIRTGDR
WTEVSEVATEV
KVGDP
PDGAAAGGG
PQGQLTAYHVSTAPTGSWF SAP
DWVSLWKGFSF
GKLPWPK
HAFCH EEG
WQTPSPQ
HDKPPDL SMQRL
LNFDP
QAPLPCVLWPVLP EPLPQGQLT
ESMPALS
NANADPN
SAFSPTHYK
CAQTDRHSLS
WHQVSLT
FHLPWMQ
APRRLFDIA
PTHYISSRH
AGRPK
IITFKSGATF
MPFEK
VKAKVQP
NSSPYLNTK
SSRISYWTIVKP
EELQKREE
GPGTWRT
LMLLRQSPTPH
DYHLKPC
CADVSQPVC
LEVPAEGDP
CRRHNYGFWVC
SQKRIRVA
HFHHTIW
MNKVYLP
SAQSLTL
DIERRIAMRL
WFTSWERDWW
TSHHDSHGLHRV

MLHTSM
NYLAWYQ
YFEPGPT
KHVFDDSGVMK
EVHGNAEVHASFFDIGGSVSAGFS
PYHQLTHGS
EANNREGVEG
DGEERQSYWFEN
SISFWTL
ILLNQLAGR
GLPLK
FKLEKEVAE
SIQTKFAP
NTSTSRTHTS
KTAISPT
VDLMTIRSCR
CKYWLSRC
NLSSWT
DFESCDSITGM
QFPLGGV
MLGTAEKVRV
GQQGLNGDS
HSYTLMF
AWGDK
NQTQHSV
LASLPFR
FPGCRRGD
YWEGSGIGAI
GAVVALSTTFA
SDSHVGKLSLAH
ASIAGMFLT
AKHDLDIKPT
HSSRQVTPLSL
GETRK
CHAWSNRRTC
SYEFRHH
STNDNIKDLLD
VTSRGNV
AEKAA
ASKAKARPV
VNLTLTGDV
YRWLPPSSA
QELPPPNAQEL
GSGSGTD
VVIVGHIEL
KTVDH
PGPSRAHFL
LPAPTS
KEPAPTTT
GHTSLR
FDPFGWS
PTTTPLK
CHAVKVGPNPSC
SPHFFNQIR
GWGQLFQ
AAPARRTRKPQQPESLEECDSE
IFIEME
EDKGPQDPQA
MSPRATI
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Ind_Set_2

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IgE Train

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Non-IgE Train

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