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logo
TrEFV   MQYS.....ILSTQQADTNND.....QETHYDDEESKYNIKVYLNLLYEAEVRRILNCHFIPLAVRRRYATLPRNK..PYPSLYEHKILLQICDRFQEMNMIFAFVGTCLRDLV
ThEFV   .MYS.....AFSTQYGKGNNYRDKSHQEMNNDIDGEKYKIEIYLQLLHEAEVRRILNCHFIPFTVRRRYVNLSSSY..RGQSSHEHKVLLHICDRFQQINMAFTFMSTCLHHFV
RhEFV1  ...........MTTNEYIVE.NMLSPLSINLENNL.Y...DSEILFMNKEDANNKLKIFLELTLQCQIEAIQTCKTIPYHIRKQYSTCRT........LELHKILYTIVEKRNSNDVFFKLIANLIE.YI
RhEFV2  .MYS.....SLSTENDKRNNYSDRSNQKNSDDISGEKSKIDIYLKLLYEAEVRRILNCHFIPFSVRRRYATLPPYC..RNQSFPEHKVLLQICDHFQHMNMAFIFMSTCLRHFI
LhEFV   .MYS.....FLSTKQDNENH.VETVNQDNDSDIEGQKCKIDIYLKLLYEAEVRRILNCHFIPFTVRRRYATL.SHY..RNQSQYEHRVLLRICDRFQQMNAAFTFMSSVLSHFI
LcEFV   .MYS.....FLSTQQDKD.....KCNKDNYEDIDEHKFKIDVYLKLMYEAEVRRILNCHFIPFTVRRRYATLCPHY..RNQSHYEHKVLLRICDRFQQMNAGFTFISTCLRHFV
LbEFV   .MYS.....FLSTKQDNENNNMDTSNKKKCDDSEEQKSKINIYLKLLYEAEVRRILNCHFIPLTVRRRYATLPACH..RNQSIHEHRVLLRICDHFQQMNMVFTFLSTYLRHFF
LhFV1   MMNENKPAAAVPNTDEMVADDDLIKSLDIEIS..SGLLES...LCLQECENVEETISLYIQMSFEVGLERVRNCKFIPLNIRNKYIQSQKNK.......RQHKLLLNIVSDCNDYYLYFLIIHYV.MEFF
LhFV2   ..........................................................................................................................
LbFV    ...................MS.RTIDKLLLQFDQTI.TDNNVPELFRIDKQSAKERMKLFLEITLQCQIQEINDCICIPLNVRKTYNKNKT........SALHKLLHNIVIKYNSSKIFYNCLATCCN.TM
CcFV1   ........MGLERTGETM.......TLASFDDVGEEILREIN.APYSSDNNRKTMNKLYNKLQLMLMDEEILTCPLIPLIIRKQYLGFKEKKKKRKISLKQYQLILNFFIEYRKLSLNYAILVQLLS.VA

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TrEFV   IPRIAVTVERQNYVTFILRTVRNAETFLRKYPFRPDFYERILRHSIKCKIAADDHDGFKSLEGEMPLPLQIMWDFLKEQFSVLSI.FLLDNVEFT......DDLCITDMRETYD...............KL
ThEFV   IPRLCIIGLQKKYIAFILPIVRNAEIFLRKYPFRHDFYERLLRHTIKYAIKGDTGDLNQILEEEMPLPLQIIWDFTKEQFSVFSM.FVLENCELL......DDSNIIDIRKMHN...............KL
RhEFV1  INNLKCVEN........NFLNQRCILFFQNYTNRPQYFNYLLLKTISEPRNNFSSLE.HDIRTNCPLPIVVLYDLVLDLMKVF.INN.L...............NNIAINETDDDETIEFKNFEQFKFEY
RhEFV2  IPRLSITG.QYKYIAFILPIVRNAETFLRKYPFRHDFYERLLRHTIKNTINEDSKDVNHIFEKEMPLPLQIIWDFIKEQFSLFSM.FVLENVELL......DDSNIIEIRQMHD...............DL
LhEFV   IPRLSVTGQQSYYISFILPFLRKAEIFIRKYPFRHDFYERLLRHSIKCTIKEESKDPYSNLEEEMALPFQITWDFIKEQFSVFSM.FVLENVELS......DDSNIVEIRQMYK...............DL
LcEFV   IPRLSVTCQELNYFSFILPFLYKAEIFIRKYPFRHDFYERLLRHSIKHTIKEDPKDPYKILEDEMALPLQITWDFIKEQFSLFSM.FVLENVELS......DDSNIVEIRQMYN...............DL
LbEFV   IPRLTVTSQQNNYIAFILPFLSKAEIFLRKYPFRHNFYERLLRHSIKRSIKEDIQDPYQILDEEMSLPLQIIWDFVKEEFSLFSM.FLLENVELS......DDSNTIEIRQMYD...............EL
LhFV1   LKKMTENKSN...NKLQCNLLNKISEWIIKYPYSLNFYNYVLHNAFKGDRKELDFDKLLIV........YVGMDFVKAFISNIIECLAIESDKLSKYQREVDDATTMTISND.D...............VI
LhFV2   ..........................................................................................................................
LbFV    LK...NKNE........SFFWKTSRDFFLNYPNSKKYFERLLFRVTYGKNVNFDLTE.E.L.EKLPPCFLVIYDYLENYFHLCFKNN.LTHL.....EESISSLPKIEIDEKNNN.........IFINDL
CcFV1   SKTFSEKMNEYNVNKYALFASNFFATFTENYPTKHSYQMLILKKTMSLETPETCS......LAPTDVIVQMVYEFIQELAIEFLNIFFMKKWK........DDPQAV......E...............EL

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TrEFV   Q..........SQVPELEELYYQQQSSNDATD..DEEEMQNVDDE...K..MANEPNDVDDEAEVVK......NEKKIDELS.....................................D........
ThEFV   K..........TKVPELEELFDQNQTAQ..HIDDNYERTENLNSK.LKN..LGSEIK.VEKLIDVNNLEKYVDVEKN.VK.....................................INNVNNIDTLNNNA
RhEFV1  LNTNNFKNFIK...........NNKKKC........KT..SQEEDKIAA...D...............SQE.............................EDKIA............S.........
RhEFV2  Q..........NKVPELEEMFDQNQTSH..PTKDAWDKAENINKE.LKI..SDSDIK.VEELSEVKNQAKRVDNEKNIIK.....................................LNNVSEFKNVNNTL
LhEFV   Q..........NHVPELEELFDNNQSSCYNENDNNCERKKHLNNDESKV..LGNENV.VKNSYEQCNKEKKHLNNDELKVLS.....NENIIRNS...YEQCNEEDTAYNVKCNVKSDDLYQLKNLNNNV
LcEFV   Q..........NHIPELEELFYRHQTF..NSSDDDYEKKKNPNNK.LEV..FDSEKK.IKTLHKGNKKENRAENEKKIDILN.....................................NFKEHENLNSII
LbEFV   Q..........NQVPELEELFEQQQSYNHKE...YYEAEEKLNND.LKV..SDSERNDLINESKLTKKENLGKIDDNGKNVN.....NNDIIPNN...T...............................
LhFV1   I..........EDDPN..VIFKDDL..C...KLVNYVKSKQINNISINEIEMVNLNK.IDVQKDDVASEKSTTMEHKIDDVV.....................................DV......V
LhFV2   ..........................................................MEHK.IDDVVDVVAPEKSTTMEHKIDDVV.....................................DV......V
LbFV    IDDSEYEIFLTEKQQEYSEMLNNNTNNN........DDNKNIDETNIAY...D..............TIKKSMNEENSDNLNINYSQNNNDNDNDYTFIENCDNDDIL............KDLFTINSKM
CcFV1   L..........DANYKLDEDYDSSSS...HSDDDDYDSSSPEDDDEFSPSST..PS..V.......TTGERGDLGENGDLGE.....NGDLGENG.......................DLGEHGDLGE..

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TrEFV   ....V.....................................................DDENNVDNDKSS...NYVNSIYCEAKGRMSFSSNDDGKNSSVNQLYSDHL
ThEFV   QTNEVE...................................NVKHIK.DMIP......NSIKEKDNMDINIKS....NNVENCSETEENMFNSNVNNCEAFSINLLESDYL
RhEFV1  ...DSQEDD.................................KIAADSQE...DDKNAVDSQEDDKNAADSQEDDKNAA...DSLEEDKNAADSLEEDKIA..ADGQEDEIEIFNNYLK
RhEFV2  QPNDVG...................................NFKNINNEIIS......NSVRDRKNVENNIKT....NNIDICCEIEGNMKVSSIHDCEAFSMNSLESDCL
LhEFV   QQTDVD...................................NVN.......Y......NSIDNNSNNNYNTKT....NNVIIHQETKESINISNIGDNESFSIDLLNNDYL
LcEFV   QQNNVL...................................NN.................DKIIYNNNNTLT....NNVYNYDKSKESINISTINDSKAFSIDILNNDYL
LbEFV   ..........................................................ENCKNGKNNIET....NNVNVYHE...EKEISTISDCEAFPIDLLNSDYL
LhFV1   APEKS....................................TTMEHKID..........................................................
LhFV2   ESMAL....................................LNINSEALV......EDADDDDDDD.........................DDDASTSINELNRNV.
LbFV    KNTETKEDEEMIKEDEEMIKKDEEMIKKDEEMIKKDEEMIKKDEEMIKEDEEEMIKKDEEEMIKKDEEMIKKDEEEENKKDEEENKKDEEEENKKDEEEENKKDEEEEN..K..KDEDEKRLKDWNNILE
CcFV1   .NGDLG...................................EHG.................DLGEN.........................GDPGDASIFAITASFPPTT

logo
TrEFV   TMEHL...RKVVLHPPSNYNVGDLHLSLVN.....
ThEFV   TLEHL...QNVLLL.SSIYDIYDFPHFINQLVESSSSYGSSLSF.......
RhEFV1  ....................KEAFRFK.........
RhEFV2  TLESL...QNVLVFSSSIYDIYDFPHFINQWIDSSSSCASSMLSLIEENDANEV
LhEFV   TLERL...KKFVLLSPYIYEIYDFPCFINQLIESSSSCGSSLRK....EDDDYI
LcEFV   TLEHL...NKVIFLSPYIYDIYDFPYFINQLIDSSSSCGSSFKK....EDNDEI
LbEFV   TLECL...KKVGLLSACSYDILDFPHFIHQLIESSSSCGSSISSSFEKVDDD..
LhFV1   ...................................
LhFV2   .............FMEYDYDE...............
LbFV    SINEIELEDKTKLFEERNYKECFFDNHDNVFIKKRRLR.............
CcFV1   PLPQLNFDSGVELL.....................
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X acidic (−)
X basic (+)
X polar uncharged
X hydrophobic nonpolar