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*           20           *           40           *           60           *
SynB : MFDALVTGSGPAGLAIAAELA-QRGLKVOGLSPVDPFHPWENTYGIWGPBELDSLGLLEHLFGHRWSNCVSYFGEAP
AtB : VVDLAVVGGGPAGLAVAQQVS-EAGLSVCSIDPS-PKLIWPNNYGVWVDFEAMDILLDCLDTTWSGAVVYVDEGV
LeB : VVDLAVVGGGPAGLAVAQQVS-EAGLSVCSIDPN-PKLIWPNNYGVWVDFEAMDILLDCLDATWSGAAVYIDDNT
CaB : VVDLAVVGGGPAGLAVAQQVS-EAGLSVCSIDPN-PKLIWPNNYGVWVDFEAMDILLDCLDATWSGAAVYIDDKT
NtB : VVDLAVVGGGPAGLAVAQQVS-EAGLSVCSIDPS-PKLIWPNNYGVWVDFEAMDILLDCLDATWSGTVVYIDDNT
AaB : VVDLAVVGGGPAGLAIAQQVS-EAGLLVCSIDPS-PKLIWPNNYGVWVDFEAMDILLDCLDTTWSGAVVYTDNNS
TeB : VVDLVVGGGPPSGLAVAQQVS-EAGLTVCSIDPS-PKLIWPNNYGVWVDFEAMDILLDCLDTTWSAVVYIDEKS
NpB : TLDLAVVGGGPLARSCSTSLG--GGLSVVSDIPN-PKLIWPNNYGVWVDFEAMDILLDCLDATWSGAIIVYVDDRS
StNSY : QFDVIIICAGPAGRLRLAEHVS-KYGIKVCVDPS-PLSMWPNNYGVWVDFENLGLLEDCLDHKWPMTCVHINDHK
LeNSY : QFDVIIICAGPAGRLRLAEQVS-KYGIKVCVDPS-PLSMWPNNYGVWVDFENLGLLEDCLDHKWPMTCVHINDNK
CsNSY : RYDVIIICGTGPAGRLRLAEQVSSRHSVKVCCVDPS-PLSTWPNNYGVWVDFEFEDIGLVDCDKTWPMTCVFINDHK
CaCCS : EFDVIIICGTGPAGRLRLAEQVS-KYGIKVCVDPS-PLSMWPNNYGVWVDFEFKLGLEDCLDHKWPVSCVHISDHK
LsE : ILDLVVIGCGPAGLALAAESA-KLGLNVGLIGPDLPFT---NNYGVWQDEFI GLGLEGCIEHSWKDTLVYLDLDDAD
AtE : ALDLVVIGCGPAGLALAAESA-KLGLNVGLIGPDLPFT---NNYGVWQDEFNDLGLQKCIHVWRDTIVYLDLDDK
AaE1 : VMDLVVIGCGPAGLSLAAEAA-KLGLKVGLIGPDLPFT---NNYGVWQDEFKDLGLERCIEHAWKDTIVYLDNDA
AaE2 : VMDLVVIGCGPAGLSLAAEAA-KLGLKVGLIGPDLPFT---NNYGVWQDEFKDLGLERCIEHAWKDTIVYLDNDA
TeE : ILDLVVIGCGPAGLALAGESA-KLGLNVGLIGPDLPFT---NNYGVWQDEFI GLGLEGCIEHVWRDTIVYLDLDDND
LeE : VMDLVVIGCGPAGLALAAESA-KLGLNVGLIGPDLPFT---NNYGVWQDEFKDLGLQACIEHVWRDTIVYLDLDDDE

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80           *           100           *           120           *           140           *
SynB : VQHQYN-VGLFDRAQLQOHWRQCEQGLOWQLGKAAIAHDSH-HSCVTTAAGQELQARLVVDTTGH-QAAFIQ
AtB : KKDLSPRYGRVNRKQLKSKMLQKCIITNGVKFHQSKVTNVVHEEA-NSTVVCSDGVKIQASVVLDTATGF-SRCLVQ
LeB : AKDLHRPYGRVNRKQLKSKMMQKCIIMNGVKFHQAKVIKVIHEES-KSMLICNDGITIQATVVLDTATGF-SRSLVQ
CaB : TKDLNRPYGRVNRKQLKSKMMQKCIILNGVKFHQAKVIKVIHEES-KSMLICNDGITIQATVVLDTATGF-SRSLVQ
NtB : TKDLDRPYGRVNRKQLKSKMMQKCIILNGVKFHQAKVIKVIHEEA-KSMLICNDGVTIQATVVLDTATGF-SRCLVQ
AaB : KKYLDPRPYGRVNRKQLKSKMLQKCVTNGVKFHQAKVIKVIHEES-KSLICNDGITINATVVLDTATGF-SRCLVQ
TeB : TKSLNRPYGRVNRKQLKTKMLQKCIANGVKFHQAKVIKVIHEEL-KSLICNDGVTIQATVVLDTATGF-SRSLVQ
NpB : TKNLSRPMARVNRKQLKSKMMKQCVSNGVRFHQATVVKAMHEEE-KSYLICSDGVTIDARVVLDTATGF-SRCLVQ
StNSY : TKYLGRPYGRVSRKRLKRLKLLNSCVENRVKFKYKAVKVEHEEF-ESSIVCDDGKKIRGSLVVDASGF-ASDFIE
LeNSY : TKYLGRPYGRVSRKRLKRLKLLNSCVENRVKFKYKAVKVEHEEF-ESSIVCDDGKKIRGSLVVDASDF-ASDFIE
CsNSY : TKYLDRPYGRVSRNLLKTKLLENCSVNGVKFHQAKVHVNHQEF-ESSIVCDDGNEIKASLIVDASGF-ASSFVE
CaCCS : TKYLDRPYGRVSRKRLKRLKLLNSCVENRVKFKYKAVLKVKEHEEF-ESSIVCDDGRKISGSLIVDASGY-ASDFIE
LsE : PIRIGRAYGRVHRDLHEELLRRCVESGVSYLSSKVERITEAPNGYSLIECEGNITIPCRLATVASGAASGKFLQ
AtE : PITIGRAYGRVSRRLHEELLRRCVESGVSYLSSKVDSITEASDGLRLVACDDNNVIPCRLATVASGAASGKLLQ
AaE1 : PVLIGRAYGRVSRHLHEELLKRCVESGVSYLDSKVERITEAGDGHSLVVCENEIFIPCRLATVASGAASGKLLQ
AaE2 : PVLIGRAYGRVSRHLHEELLKRCVESGVSYLNSKVERITEAGDGHSLVVCENDIFIPCRLATVASGAASGKLLQ
TeE : PILIGRAYGRVSRDLHEELLTRCVESGVSYLSSKVERITEAPNGYSLIECEGNITIPCRLATVASGAASGKLLQ
LeE : PILIGRAYGRVSRHFLHEELLKRCVEAGVLYLNSKVDRIVEATNGQSLVECEGDVVI PCRFVTVASGAASGKFLQ

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160           *           180           *           200           *           220
SynB : RPH--SDAIYQAAVGIIGQFSQPPIEPHQVFLMDYRSDHLSP----EERQL-PPTFLYAMD LGNDVYFVEETSLSL
AtB : YDK--FYNPGYQVAVGILAEVEEHPFDVKNMVFMDWRDHLKDSYPELKERNSKIPTFLYAMPFSSNRIFLEETSLSL
LeB : YDK--FYNPGYQVAVGILAEVEEHPFDVKNMVFMDWRDHLKNNNTDLKERNRIPTFLYAMPFSSNRIFLEETSLSL
CaB : YDK--FYNPGYQVAVGILAEVEEHPFDVKNMVFMDWRDHLKNNVELKERNRIPTFLYAMPFSSNRIFLEETSLSL
NtB : YDK--FYKPGYQVAVGILAEVEEHPFDTSKMLVMDWRDHLGNNMELKERNRKVPTFLYAMPFSSNKIFLEETSLSL
AaB : YDK--FYNPGYQVAVGILAEVEEHPFDLDKMLFMDWRDHLNEKLELKDKNRKIPTFLYAMPFSSTKIFLEETSLSL
TeB : YDK--FYNPGYQVAVGILAEVEEHPFDVKNMVFMDWRDHLNLEIKARNRIPTFLYAMPFSSSTRIFLEETSLSL
NpB : YDK--FYNPGYQVAVGILAEVEEHPFDVKNMVFMDWRDHLNGKAEINERNAKIPTFLYAMPFSSNRIFLEETSLSL
StNSY : YDK--PRNHGYQIAHGVLVEVDNHPFDLDKMLVMDWRDHLGNPEYLRVNNAKEPTFLYAMPFDRNLVLEETSLSL
LeNSY : YDR--PRNHGYQIAHGVLVEVDNHPFDLDKMLVMDWRDHLGNPEYLRVNNAKEPTFLYAMPFDRDLVLEETSLSL
CsNSY : YDK--PRNHGYQIAHGILAEVESHPFDLDKMLVMDWRDHLGNPEYLRASNLKLIPTFLYAMPFDSNLVLEETSLSL
CaCCS : YDK--PRNHGYQVAVGILAEVDNHPFDLDKMLVMDWRDHLGNPEYLRVKNKTEPTFLYAMPFDRNLVLEETSLSL
LsE : YELGGPR-VCVQIAYGIEVEVENNPYDPLMVFMDYRDFSKHKPESLEA---KYPTFLYVMPMSPTKIFFEETCL
AtE : YEVEGGPR-VCVQIAYGVEVEVENNPYDPMVFMDYRDYTKHKVRSLEA---EYPTFLYAMPMTKSRLEFFEETCL
AaE1 : YEVEGGPR-VCVQIAYGVEVEVENNPYDPLMVFMDYRDYMOQKQKLCSEE---EYPTFLYVMPMSPTKLEFFEETCL
AaE2 : YEVEGGPR-VCVQIAYGVEVEVENNPYDPLMVFMDYRDYMOQKQKLCSEE---EYPTFLYVMPMSPTKLEFFEETCL
TeE : YELGGPR-VCVQIAYGIEVEVESIPYDPLMVFMDYRDYTKHKVRSLEA---QYPTFLYVMPMSPTKLEFFEETCL
LeE : YELGSPR-VSVQIAYGVEVEVDNHPFDPLMVFMDYRDYLRHDAQSLEA---KYPTFLYVMPMSPTKLEFFEETCL

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*      240      *      260      *      280      *      300
SynB : AACPAIPYDRLKQRLYQRLATRGVTVQVIQHEEYCLFPMNLP L PDLTQSVVGFGGAA SMVHPASGYMVGALLRRA
AtB :  VARPGLRMEDIQERMAARLKHLGINVKRIEEDERCVIPMGGPLPVLPORVVGIGGTAGMVHPSTGYMVARTLAAA
LeB :  VARPGLRIDDIQERMVARLNHLGIKVKVSI EEDHCLIPMGGPLPVLPORVVGIGGTAGMVHPSTGYMVARTLAAA
CaB :  VARPGLGDDIQERMVARLSHLGIKVKVSI EEDHCVIPMGGPLPVLPORVVGIGGTAGMVHPSTGYMVARTLAAA
NtB :  VARPGLRMDDIQERMVARLNHLGIKVKVSI EEDHCVIPMGGSLPVIPORVVGIGGTAGLVHPSTGYMVARTLAAA
AaB :  VARPGLRFEDIQERMVARLKHLGIKVKVSI EEDERCVIPMGGPLPVLPORVVGIGGTAGMVHPSTGYMVARTLAAA
TeB :  VARPGLKMEDIQERMAYRLKHLGIKVKVSI EEDERCVIPMGGPLPVLPORVLGIGGTAGMVHPSTGYMVARTLAAA
NpB :  VARPGLKEDIQERMVARLNHLGIRIKVSI EEDERCVIPMGGPLPVIPORVVGIGGTAGMVHPSTGYMVARTLAAA
StNSY : VSRPVL SYMEVKRRMVARLRHLGIKVRVSI EEEKCVIPMGGPLPRIPONVMAIGNSGIVHPSTGYMVARSMLALA
LeNSY : VSRPVL SYMEVKRRMVARLRHLGIKVRVSI EEEKCVIPMGGPLPRIPONVMAIGNSGIVHPSTGYMVARSMLALA
CsNSY : VSRPVL SYKEVKS RMAARLRHMGIRVKRVI EDEKCLIPMGGPLPVIPQSVMAIGGTSGLIHPATGYMVARTMALA
CaCCS : VSRPML SYMEVKRRMVARLRHLGIKVRVSI EEEKCVITMGGPLPRIPONVMAIGGTSGLIHPSSGYMVARSMLALA
LsE :  ASREAMPFNLLKSKLMSRLKAMGIRITR T YEE EWSYIPVGGSLPNTEOKNLAFGAAASMVHPATGYSVVRSLSEA
AtE :  ASKVMPFDLLKTKLMLRLDTLGI RILKTYEE EWSYIPVGGSLPNTEOKNLAFGAAASMVHPATGYSVVRSLSEA
AaE1 : ASKDAMPFDLLKRLKMSRLKTLGIQVTKVYEE EWSYIPVGGSLPNTEOKNLAFGAAASMVHPATGYSVVRSLSEA
AaE2 : ASKDAMPFDLLKRLKMSRLKTLGIQVTKIYEE EWSYIPVGGSLPNTEOKNLAFGAAASMVHPATGYSVVRSLSEA
TeE :  ASKEAMPFELKTKLMSRLKTMGIRITKTYEE EWSYIPVGGSLPNTEOKNLAFGAAASMVHPATGYSVVRSLSEA
LeE :  ASKDAMPFDLLKLLMLRLNTLGVRIK ETYEE EWSYIPVGGSLPNTEOKTLAFGAAASMVHPATGYSVVRSLSEA

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*      320      *      340      *      360      *
SynB : PDLANAIAAGLNASSS-----LTTAELATQAWRGLWPTEKIRKHYIYQFGL EKL MRFSEAQLNHHFQTFEGLP
AtB :  PIVANAIVRYL GSPSSNS-----LRGDQLSAEVWRDLWPIERRRQREFFCF GMDILLKLDL DATRRFFDAFFDLQ
LeB :  PVVANAIIQYLGSERS-----HSGNELSTAVWKDLWPIERRRQREFFCF GMDILLKLDL PATRRFFDAFFDLE
CaB :  PVVANAIIQYLSERS-----HSGDELSAAVWKDLWPIERRRQREFFCF GMDILLKLDL PATRRFFDAFFDLE
NtB :  PVVANAIIHYL GSEKD-----LLGNELSAAVWKDLWPIERRRQREFFCF GMDILLKLDL PATRRFFDAFFDLE
AaB :  PVVAKSIVQYL GSDRS-----LSGNELSAEVWKDLWPIERRRQREFFCF GMDILLKLDL QGTRRRFFDAFFDLE
TeB :  PIVAKSIIRYLNNEKSMVAD---VTGDDLAAGIWRDLWPIERRRQREFFCF GMDILLKLDL EGTRRRFFDAFFDLE
NpB :  PIVANSIVQYL VSDSG-----LSGNDLSADVWKDLWPIERRRQREFFCF GMDILLKLDL EGTRRRFFDAFFDLE
StNSY : PVLAEAIVKGL GSTRM-----IRGSQLYHRVWNGLWPLDRRCIGECYSFGMETLLKLDL KGTRRRFFDAFFDLD
LeNSY : PVLAEAIVEGL GSTRM-----IRGSQLYHRVWNGLWPLDRRCVRECYSGMETLLKLDL KGTRRRFFDAFFDLD
CsNSY : PALADAIAECL GSTRM-----IRGRPLHQKVVWNGLWPIDRRRCNREFYSFGMETLLKLDL KGTRRRFFDAFFDLN
CaCCS : PVLAEAIVESL GSTRM-----IRGSQLYHRVWNGLWPSDRRRVRECYCF GMETLLKLDL EGTRRRFFDAFFDVD
LsE :  PNYAAVIAKIL RQDQSKEMISLGKYT-NISKQAWETLWPLERKRQRAFFL FGLSHIVLMDLEGTRTFERTFFERL P
AtE :  PKYASVIAEIL REETTKQINS-----NISRQAWDTLWPPERKRQRAFFL FGLALIVQFDTEGIRSFERTFFERL P
AaE1 : PKYASVIAKIL QDNSAYVVS GQSSAVNISMQAWSSLWPKERKRQRAFFL FGLELIVQLDIEATRFFERTFFERL P
AaE2 : PKYASVIAKIL QDNSAYVVS GQSSAVNISMQAWSSLWPKERKRQRAFFL FGLELIVQMDIEATRFFERTFFERL P
TeE :  PNYAAVIAKIL KGNSKQMLDHGYTTNISKQAWETLWPLERKRQRAFFL FGLALIVQMDIEGTRFFERTFFERL P
LeE :  PKCASVLANIL RQHYSKNMLTS-SSIPSISTQAWNTLWPPERKRQRSFFL FGLALILQLDIEGIRSFERRAFFRVP

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380      *      400      *      420      *
SynB : KEQWYGFLTNTLSLPELIQAMRLFAQAPNDVRWGLMEQOGRELQLFWQAIAR--
AtB :  PHYWEGFLSSRFLPELIVFGLSLF SHASNTSRLEIMTKGTVP LAKMINNLLVQDRD
LeB :  PRYWEGFLSSRFLPELIVFGLSLF SHASNTSRFEIMTKGTVP LVNMINNLLQDKE
CaB :  PRYWEGFLSSRFLPELIVFGLSLF SHASNTSRLEIMTKGTLPLVHMINNLLQDKE
NtB :  PRYWEGFLSSRFLPELIFFGSLF SRASNTSRLEIMTKGTLPLVNM INNLLQDTE
AaB :  PHYWEGFLSSRFLPELFFGLSLF SHASNASRIEIMAKGTVP LVNMMNLIQDTE
TeB :  PRYWEGFLSSRFLPELVTFGLSLF SHASNTCRVEIMAKGTLPLATMIGNLVDRDRE
NpB :  PRYWEGFLSSRFLPELVFGLSLF SHASNTCKLEIMAKGTLPLVNM INNLLVQDRD
StNSY : PKYWQGFLSSRFLSVKELAILS LCLF GHGNSLTRLDIVTKCPVPLVRLIGNLAIESL
LeNSY : PKYWQGFLSSRFLSVKELGLLS LCLF GHGNSMTRLDIVTKCPLPLVRLMGNLAIESL
CsNSY : PYYWEGFLSSRFLSIAETAGLS LSLF GHASNSSRLDIVTKCPVPLVKMMGNLALETI
CaCCS : PKYWEGFLSSRFLSVKELAVLS LYL FGHASNLARLDIVTKCTVPLVKLLGNLAIESL
LsE :  KWMWQGFLGSSLSSTDLIIFALYMFVIAPHSLRMELVRHLLSDPTGATMVKAYLTI
AtE :  KWMWQGFLGSTL TSGDVLFAFYMFVISPNNLKGLINHLISDPTGATMIKTYLKV
AaE1 : TWMWQGFLGSSLS SFDLVLF SMYMFVLAPNSMRMSLVRHLLSDPSGAVMVRAYLER
AaE2 : TWMWQGFLGSSLS SFDLVLF SMYMFVLAPNSMRMSLVRHLLSDPSGAVMVKAYLER
TeE :  TWMWQGFLGSSLS STDLIIFAFYMFIIAPHSLRMGLVRHLLSDPTGGTMLKAYLTI
LeE :  KWMWQGFLGSSLS SADLMLFAFYMFIIAPNDRKGLIRHLLSDPTGATLIRTYLTF

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