```
                 *        20         *        40         *        60         *        80
1A  : ------------------------------------------------------------------------------------ :   -
2A  : ------------------------------------------------------------------------------------ :   -
3A  : ------------------------------------------------------------------------------------ :   -
4A  : ---------MSFTNLWVNNST----DSRDDSLPITTSPSPSHYDIVSDEQWYIVQVVNGVVLCGLVSLFGVASNIINIVVFAK :  70
5A  : ---------MSFSNLWVNNLT----DSRDDSVPITTSPSPSHYDIMSDEQWYIVQVVNGVVLCGLVSLFGVVSNIINIVVFAK :  70
6A  : ---------MSFSNLWVNTST----DSRDDSVPITASPSPLHYDIVSDEQWYIVQVVNGVVLCGLVSLFGVVSNIINIVVFAK :  70
7A  : ------------------------------------------------------------------------------------ :   -
8A  : ------------------------------------------------------------------------------------ :   -
9A  : MSHTSLPPRMSISHTWGNNSTYSRDQKMSLPMTTLSSSGSYYANIVSDEQWYIVQVVNVVVISGLLSLFGVASNIINIVVFAK :  83
10A : ------------------------------------------------------------------------------------ :   -
11A : ------------------------------------------------------------------------------------ :   -
12A : ---------MSISLLWGGNSTYSCDQKMSIPKTTPSPSGSDNAKIVSDEEWYIVQVVIAVVICGLLSLFGVASHIINIVVFAK :  74
13A : MSHTSLPPRMSISHTWGNNSTYSRNDSQSLPMTTLSPSGSYYANIVSDEQLYTIEVVNAVVISGLLSLFGVAYNIINIVVFAK :  83
14A : ------------------------------------------------------------------------------------ :   -
15A : MSHTSLPPRMSISHLWGNNSTYSHDQKMSLPMTTPSPSGSQYANIVSDEQLYIIQLVNGVVICGLLSLFGVASNIINIVVFAK :  83
16A : MSHTSLPPRMSISHTWGNNSTYSRDDSLSLPLTTPSPSGLYYANIVSDQQWFIVQVVNVVVISGLLSLFGVASNIINIVVFAK :  83
17A : ------------------------------------------------------------------------------------ :   -
18A : ------------------------------------------------------------------------------------ :   -
19A : ------------------------------------------------------------------------------------ :   -
20A : ------------------------------------------------------------------------------------ :   -
21A : ------------------------------------------------------------------------------------ :   -
22A : MSHTSLPPRMSISHLLGNNSTYSLKESVNLPITTPSTWVQYAQ-IVSDEQWYIFQVVNAVVIAGLLSLFGVASNIINIVVFAK :  82
23A : ------------------------------------------------------------------------------------ :   -
24A : ------------------------------------------------------------------------------------ :   -
25A : ------------------------------------------------------------------------------------ :   -
26A : MSHTSLPPRMSMSHLWGNNSTHFRDQKMS----TPSPSGSYYEKIISDEQWYIVQVVIVVVISGLLSLFGVATNIINIVVFAK :  79
27A : MSHTSLPPRMSMSHLWGNNSTNSCDYNMGLSMTTPSPSGSYYANIVSDEQLYAIKMVNVVVISGLLSLFGVASNIINIVVFAK :  83
28A : ------------------------------------------------------------------------------------ :   -

                *       100         *       120         *       140         *       160
1A  : ------------------GLAVSDLCSLVAMMWISICVNPLFYLSELPFDPRDIMYLTGGTPRYLGVKISTFITAFITFERCL :  65
2A  : ------------------GLAVSDLCSVVAMMWISICWNPLFYLSDLPFEPRDIMYLTGATPRYLGVKISTFITAFITFERCL :  65
3A  : ------------------GLALSDLCSLVTMIWISICVNPLFYLSKLPFEPRDIMHLTGAMPHYLFVKIATFITAFITFERCL :  65
4A  : QGFQDSMN------ISLMGLAVSDLCSMVTTIWLSICVNPLFYLSELPFEPRDIMHLTGAMPRYLFVKIATFITAFITFERCL : 147
5A  : QGFQDSMN------ISLMGLAVSDLCSLVTTIWLSICVNPLFYLSELPFDPRDIMYLTGSMPRYLFVKIATFITAFITFERCL : 147
6A  : QGFQDSMN------ISLMGLSVSDLCSLVAMMWISICVNPLFYLSELPFDPRDIMLPTGAIPRYLFVKISTFITAFITFERCL : 147
7A  : ------------------GLAVSDLCSLLTMIWICICVTPLFYLSELPFDPRDIMYLTGVTPHFLFVKIATFITAFITFERCL :  65
8A  : ------------------GLAVSDLCSLLTMIWLSVCVNPLFYSSELPFDPRDILYLTGATPHILFVKIATFITAFITFERCL :  65
9A  : QGFQDSMN------ISLMGLAVSDLCSLLTMIWICICVTPLFYLSELPFDPRDIMYLTGVTPHFLFVKIATFITAFITFERCL : 160
10A : ------------------GLAVSDLCSLVPTIWLSICLNPLFYNSELPFDPMGIMNITGATPHILFFKIATFITAFITFERCL :  65
11A : ------------------GLAVSDLCSLLTMIWISICENPLFYRSELNFDPKDILYLTGAMPHVLFVKIATFITAFITFERCL :  65
12A : QGFQGQHEHQPHGVFIISGLAVADLCSLLSMIWLSICWNPLFYNSELPFDPRDILNLTGAVPHVLLVKIATFITAFITFERCL : 157
13A : QGFQ------DSMNISLMGLAVSDLCSLLTMIWISICQNPLFYRSELNFDPQDILYLTGAVPHVLFVKIATFITAFITFERCL : 160
14A : ------------------GLAVSDLCSLLTMIWISICQNPLFYRSELNFDPQDILYLTGAVPHVLFVKIATFITAFITFERCL :  65
15A : QGFQDSMN------ISLMGLAVSDLFSLLTTIWLSICANPLFYNSELPFDPRDLTDLTGGMPHILFVKIATFITAFITFERCL : 160
16A : QGFQDSMN------ISLMGLAVSDLCSLLSMIWICICVNPLFYLSKLPFDPRDILYLTGVMPHFLFVKIATFITAFITFERCL : 160
17A : ------------------GLAVSDLCSLLTMIWISICENPLFYRSELNFDPKDILYLTGAMPHVPFVKIATFITAFITFERCL :  65
18A : ------------------GLAVSDLCSLLTMIWISICENPLFYRSELNFDPKDILYLTGATPHILFVKIASFITAFITFERCL :  65
19A : ------------------GLAVADLCSLVTMIWISICQNPLFYRSELPFDSTDIKYLTGSTPHVLFVKIATFITAFITFERCL :  65
20A : ------------------GLAVSDLFSLLTTMWLSICVNPLFYNSELPFHPNDIMNLTGGIPHIICVKIATFITAFITFERCL :  65
21A : ------------------GLAVSDLCSLLPTIWLSLCANPLFYNSELPFDPRNMVNVTGAVPHIIFFKIATFITAFITFERCL :  65
22A : QGFQ------DSMNISLMGLAVADLCSLVTMIWISICMNPLFYFSELPFDSTDILYLTGSTPHVLFVKIATFITAFITFERCL : 159
23A : ------------------GLAVADLCSLLSMIWLSICWNPLFYNSELPFDPRDILNLTGAVPYVLLVKFATFITAFITFERCL :  65
24A : ------------------GLAVSDLCSLLIMIWLSLCLNPLFYNSELPFDPMDIIVSTGGIPHVLFVKIATFITAFITFKRCL :  65
25A : ------------------GLAVADLCSLVTMLWISICMNPLLYFSELPFHLGDIMHLTGSTPHVLSVKISSFITAFITFERCL :  65
26A : QGFQDSMN------ISLMGLAVSDLCSLLTMIWISICWNPLFYNSKLHFDPRDISNLTGAMPHVLFVKIATFITAFITFERCL : 156
27A : QGFQ------DSMNISLMGLAVSDLCSLLTMTWISICENPLFYRSELNFDPKDILYLTGAIPHVLFVKIATFITAFITFERCL : 160
28A : ------------------GLAVSDLCSLLTMIWISICQNPLFYRSELNFDPQDILYLTGAVPHVLFVKIATFITAFITFERCL :  65
                         GLa6sDLcS66 m W6s6C nPLfY SeL Fdp  6   TG  Ph  fvKia3FITAFITFeRCL
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           *       180         *       200         *       220         *       240
1A  : CIVAPLKVKMIITPARTKIIISSIYITMFILLIPFCLGNRLEWVFDFTVNATVLKTTYTAERELLEAITYLTQAVFTTTLSFV : 148
2A  : CIVVPLRVKTIITPARTKIIIISIYITMSILLIPFCLGNRLEWVFDFTLNATVLKTTFTAERELLEAITYLTQAVFTTTLSFV : 148
3A  : CIAAPLKVKTIITPVRTKIIIISIYITMSILLIPFCLGSRLEWVFDFTVNATVLKTTYTAERELLEAITYLTQGVFTTTLSFV : 148
4A  : CIAAPLKVKMIITPARTKVIIVSIYITMSILLIPFCLGSRLEWVFDFTVNATVLKTTYTAERELLEAITYLTQGVFTTTLSFV : 230
5A  : CIAAPLKVKMVITPVRTKMIIISIYITMSILLIPFCLGHRLEWVFDFTLNATVLKTTFTAEREMLEAITYLTQGVFTTTLSFV : 230
6A  : CIAVPLKVKAIITPVRTKIIIISIYITMSILLIPFCLGNRLEWVFDFTVNATVLKTTYTAERELLEAITYLTQGVFTTTLSFV : 230
7A  : CIAVPLKVKTIITPGRTKIIIISIYIAMAVLMIPFCLGNSLELVFDFTRNVTILKSTFTAERDMLEAITFLTQGVFTTTFSFV : 148
8A  : CIAVPLKVKTIITPGRTKTIIISIYIAMAVLIIPFCLGNRLEWVFDSATNATILKTTYTAEKEILEVITFLTLGVFATTFSFV : 148
9A  : CIAVPLKVKTIITPGRTKIIIISIYIAMAVLMIPFCLGNSLELVFDFTRNVTILKSTFTSERDMLETITFLTQGVFTTTFSFV : 243
10A : CIAVPLKVKTIITPRRKKAIIISIFLAMSVLMIPYCIGNRLVWVFDFNKNATILTTTFTAERDMLEAITFITQGVFATTLSFV : 148
11A : CIAVPLKVKTIITPGRTKTIIISIYIAMSVLMIPFCLGNRLEWVFEFTVNATVLKTTFTAEREMLEAITFLALGVFATTFSFV : 148
12A : CIAVPLKVKTIITPRRTKTIIISIYIAMAVLMIPFCLGNRLEWVYDLTLNATVLKATYTAERDILEAITLLIQDVIATTFSFV : 240
13A : CIAVPLKVKTIITPRRTKIIIISIYIGMSVLVIPFCLGNRLEWVFDFNKNATVLKTTFTAEREMLEAITFLTQGVFATTFSFV : 243
14A : CIAVPLKVKTIITPRRTKIIIISIYIGMSVLVIPFCLGNRLEWVFDFNKNATVLKTTFTAEREMLEAITFLTQGVFATTFSFV : 148
15A : CIAVPLKVKTIITPRRTKTIIISIYIAMAVLVIPYYFGNRLEWIFDFNKNATVLKTTYTAERGMFEAITFLTQGVFTTTFSFV : 243
16A : CIAIPLKVKTTITPGRTKTIIVSTYITLSLLMIPFCLGNRLEWVFDYSMNSTMLKTTYTPEKEMLEAISFLALGVLTTTFSFV : 243
17A : CIAVPLKVKTIITPRRTKIIIISIYVAMSVLMIPFYLGNRLEWVFDFPTNVTVLKTTFTAEREMLEAITFLTQGVFATTFSFV : 148
18A : CIAVPLKVKTIITPGRTKTIIISIYIAMSLLMIPFYLGNRLEWVFDFTVNATVLKTTFAADREMLEAITFLTLGVFSTTFSFV : 148
19A : CIVVPLKVKTIITPGRTKTIIIAIYLIVSIMGIPFCLGHRFEWVFDFARNATILKSTFTAERDLLEAITFLTQGVFATTFSFV : 148
20A : CIAVPLKVKTIITPGRTKTIIISIYIAMSALMIPYCLGSRLEWVFDFNRNATVLITTYTAEREMLEAITFLAQGVFGTMFSFV : 148
21A : CIVVPLKVKTIITPGRTKTIIISIYIGMSVLVIPYCLGNRLEWVFDFNKNATVLITTFTAERDMLETITFLTQGVFATTFSFV : 148
22A : CIAVPLKVKTIITPRRTKTIIISIYITIPILIIPFILGHRFEWVFDFTRNDTILRSTYTADREMLEAITFLALGVFATTFSFV : 242
23A : CIAVPLEVKTIITPRRTKTIIISIYIAMAVLMIPFCLGNRLEWVYDLTLNATVLKATYTAEREILEAITLLIQDVIATTFSFV : 148
24A : CIAVPLKVKTIITPGRTKTIIISIYVGMSVSMIPYYLGNRLEWVFDFNRNVTVLKP--TAERELLEVITFLIQGVFT-TFSFV : 145
25A : CIVVPLKVKTIITPGRTKIIIISIYLIVSSMGIPFCLGHRFEWVFDFTRNATILRSTYTADREMLEAITFLAQGVFATTFSFV : 148
26A : CIAVPLKVKTIITPRRTKTIIISFYIALAVLMIPFCLGNRLEWVYDLTANATVLRATHAAEREMLEAITFLTQDVIATTFSFV : 239
27A : CIAVPLKVKTIITPGRTKTIIISIYVAMSVLMIPFYLGNRLEWVFDFPTNVTVLKTTFTAEREMLEAITFLTQGVFASTFSFV : 243
28A : CIAVPLKVKTIITPRRTKTIIISIYITIPILIIPFILGHRFEWVFDFTRNATILRSTYTADREMLEAITFLALGVFATTFSFV : 148
      CIa PL VKt ITP RtK II si56 6    IP5  G rlew65d   N T6L  t tae4 6lEaI3 6 qgVf  t SFV

           *       260         *       280         *       300         *       320         *
1A  : FVICCTIVLVVKLNSKTKWRQATVAKGDRAAEGAGIKDRKVVKMVTFIAVIFIVCSLPPTILFFYMLFDKDFHVDGVHRNLFL : 231
2A  : FVICCTIVLVVKLNSKTKWRQATVAKGDRAAEGVGVKDRKVVKMVTFIAVIFIICSLPPTVLFFYMLFDKDFHIDGVHRNLFL : 231
3A  : FVICCTIVLVVKLNSKTKWRQATVAKGDRAAEGVGVKDQKVVKMVTFIAVIFIVCSLPPTILFFYMLFDTNFRIDGAYPNLYL : 231
4A  : FVICCTIVLVVKLNSKTKWRQATVAKGDRAAEGVGVKDQKVVKMVTFIAFIFIVCSVPPTLLFFYMLFDTNFRIDGAYPNLYS : 313
5A  : FVICCTIVLVVKLNSKTKWRQATAAKGDRAAEGVGVKDQKVVKMVTFIAVIFIVSAVPPTLLFFYMLFDTNFRIDGAYPNLYS : 313
6A  : FVICCTIVLVVKLNSKTKWRQATAVKGDRAAAGVGVKDQKVVKMVTFIAVIFIVCSLPSTLLFFYMLFDSDFRVDGAYPNLYS : 313
7A  : FVICCTIVLVVKLNSKTKWREATAAKSDRAAEGVGVRDKKVVKMVTFIAVIFIVCAVPPTLLFFYMVFDQDFRIDGVYRNLYS : 231
8A  : FVICCTIVLIVKLNSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTFIAVIFIVCSVPPTLLFFYMVIDPSFRIDGVYRNLYL : 231
9A  : FVICCTIVLVVKLNSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTFIAVIFIVCAVPPTLLFFYMVFDQDFRIDGVYKNLYL : 326
10A : FVICCTIVLVVKLKSKTKWRQATVAKSDRAAEGVGVKDQKVVKMVTLIALIFIVCAVPSTLLFLYMVIDPSFRIDGVYGNVFL : 231
11A : FVICCTIVLIVKLNSKTKWRQATAAMSDRAAEGVGVKDQKVVKMVTFIAVIFIVCSVPPTLLFFYMVIDPSFRIDGVYRNLYL : 231
12A : FVVCCTIVLVVKLKSKTKWRQATAAKSDRAAGGVGVKDQKVMKMVTFIAVIYIICAVPSTLFFLYIVIDPSFHHDGSYRNLFL : 323
13A : FVICCTIVLIVKLNSKTKWRQATATKSDRATEGVGVKDQKVVKMVTLIASIFIVCTVPPTLIILYMVIDPGFRVDGVYRNLYL : 326
14A : FVICCTIVLIVKLNSKTNWRQATATKSDRATEGVGVKDQKVVKMVTLIASIFIVCALPPTLLFLYMVIDSSFRVDGVYRNLYL : 231
15A : FVICCTIVLIVKLNSKTKWRRATAAKSDRAAEGVGVKDQKVVKMVTFIAVIFIVCSVPPTLMFLYMVIDPSFRIDGVYGNLYF : 326
16A : FVICCTIVLIVKLNSKTKWRQTTAAKSDRVAGGVGVKDQKVVKMVTFIAVIFIVCAVPPTLLFFYMLFDIDFRIDGFYKNLYL : 326
17A : FVICCTIVLVVKLKSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTLIAVIFIVCSLPPTLLFLYMVIDIDFRINGVYRNLYL : 231
18A : FVICCTIVLIVKLKSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTFIAAIFIVCAVPPTLLFLYMVIDPSFRIDGVYRNIYL : 231
19A : FVICCTIVLIVKLKSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTFIAVIFIVCAVPPTLLFFYMAIDPSFRFYGVHRNLYL : 231
20A : FVICCTIVLIVKLNSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTFIAVIFIVCALPSTLLFLYMVIDIDFRIDGFYKNIYL : 231
21A : FVICCTIVLIVKLKSKTKWRKATVAKSDRASGGVGVKDQKVVKMVTLIAVIFIVCAVPSTLLFLYMVIDPSFRVGSVYGNVFL : 231
22A : FVICCTIVLIAKLNSKTKWRQATAAKSDGAAEGVGVKDQKVVKMVTLIAVIFIVCAVPPTLLFFYMAIDPSFRFFGVYKNLYL : 325
23A : FVVCCTIVLVVKLNSKTKWRQSTAAKSDRAAGGVGVKDQKVVKMVTFIAVIYIICAVPSTLFFLYIVIDPSFYHDGSYRNLFL : 231
24A : FVISCTIVLIVKLNSKTKWRQATAAKSDRAAGGVGVKDQKVVKMVTFIAVIFIVCSVPPTLLFFYMVIDIDFRVGGVYRNLYL : 228
25A : FVICCTIVLVVKLNSKTKWRQATVAKSDRAAQGVGVKDRKVVKMVTLIAVIFIVCAVPPTLLLLYMAIDPSFRFNSVYRNFYR : 231
26A : FVICCTIVLIVKLKSKTKWRQATVAKSDRVAGGVGVKDRKVVKMVTFIAVIFIVCTVPSTLLFLNMVIDPSFHLDGSYRNLFF : 322
27A : FVICCTIVLIVKLKSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTLIAVIFIVCSLPPTLLFLYMVIDLDFRINGVYRNLYL : 326
28A : FVICCTIVLIVKLNSKTKWRQATAAKSDRAAEGVGVKDQKVVKMVTLISVIFIVCAVPPTLLFFYMAIDPSFRFFGVYKNLYL : 231
      FV6cCTIVL6vKL SKTkWR aT aksDraa GvG64DqKV6KMVT Ia I5I6c 6P T6 f y6  D  Fr  g y N 5
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            340         *       360         *
1A  : VVFFSSFITETLNSSVNIIVYLKMSSKYRAVFMKIFLNKEKK---- : 273
2A  : VVFFSSFITETLNSSVNIIVYLKMSSKYRAVFMKTFFYNKKKCIFT : 277
3A  : VIWSSSYLAETVNSSVNIFVYLKMSSKYRAVFMKTFLNKE------ : 271
4A  : TIWCLSFLTETVNSSVNIFVYLKMSSKYRAVFMKTLLNKEEK---- : 355
5A  : TIWCLSFLTETVNSSVNIFVYLKMSSKYRAVFIKTFLNKQEK---- : 355
6A  : VIWSSSFLTETVNSSVNIFVYLQMSSKYRAVFLKHF---------- : 349
7A  : VIWSSAFLTETINSSVNIFVYLKMSSKYRAVFLKTFWKKEEK---- : 273
8A  : VIWSSSYLTETVNSSVNIFVYLKMSSKYRAVFMKTFLNKEKK---- : 273
9A  : VIWSSAFLTETINSSVNIFVYLNMSSKYRVAFLKTFWKKDVK---- : 368
10A : VLWSSSYLTETINSSVNIFVYLKMSSKYRAVFQKILCNKEEK---- : 273
11A : VIWSSSYLTETVNSSVNIFVYLKMSSKYRAVFMKTFLNKEKK---- : 273
12A : VLCFLSFLTETINSSVNIFVYLKMSSKYRAVFMKTFWN-------- : 361
13A : VIWSSSYLTETVNSSVNIFVYLKMSSKYRAVFMKIFWNNEEK---- : 368
14A : VIWTTSFLTETVNSSVNIFVYLKMSSKYRTVFMKIFWNNEEK---- : 273
15A : VIWCSSFLTETVNSSVNIFVYLKMSSKYRIVFMKTFLNKGEK---- : 368
16A : VIWSSAFLTETINSSVNIFVYLKMSSKYRAVFMKTFLKKEEK---- : 368
17A : VVWSSSYLTETINSSVNIFVYLKMSSKYRAVFMKTFWTHRKK---- : 273
18A : VVWTSSFLTETVNSSVNIFVYLKMSSKYRAVFMKTFWNKEEN---- : 273
19A : VIWTTSFLTETVNSSVNIFVYLKMSSKYRAVFMKMFWNKEENK--- : 274
20A : VIWSLAFLTETVNSSVNIFVYLKMSSKYRAVFMRTFLNKKEK---- : 273
21A : VLWSSSYLTETVNSSVNIFVYLKMSSKYRAVFLKTFWNKEEK---- : 273
22A : IFWTSSFLTETVNSSVNIFVYLKMSSKYRAVFMKTFWNKEEK---- : 367
23A : VLCFLSFLTETINSSVNIFVYLKMSSKYREVFMKTFWN-------- : 269
24A : VIWTTSFLTETINSSVNIFVYLKMSSKYRAVFMKRF---------- : 264
25A : VLWTLPYLTETVNSSVNIFVYLKMSSKYRAVFMKTFWNKEEK---- : 273
26A : VCCSLSYLTETINSSVNIFVYLKMSSKYRAVFMKTFWNRKEK---- : 364
27A : VVWSSSYLTETINSSVNIFVYLKMSSKYRAVFMKTFWTHRKK---- : 368
28A : IFWTSSFLTETVNSSVNIFVYLKMSSKYRAVFMKTFWNKEEK---- : 273
      s56tET6NSSVNIfVYLkMSSKYRavF 4 f
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                 *        20         *        40         *        60         *        80
1B  : MASGNESYGT--PLGPPQSRMVDDHVLAIIICFFVIILGTISFFGIVANVINLIVFIRQGFKDTVNISLFSLAISDIGALIP :  81
2B  : MASGNETYGT--SFGPRPSRMVNDLVLTIFVIGFYVIILGAICLSGIVANVINLIVFIRQGFKDTVNIFLFSLAISDIGLLIA :  81
3B  : MASGNETHGT--SFGPRPSRMVNDLVLAIFVIGFYVIILGVISFFGIVANVINLIVFIRQGFKDTVNISLFSLAIADIGALIA :  81
4B  : MASGNESYGT--PPGPLQIKMINELVLTILLVVFNVIIVGAISFFGIVANVINLIVFIRQGFKDTMNISLFSLAISDIGALTP :  81
5B  : MASSNKSYPS--NSETTLKGLVDDHVREIFVLLFFVFALGTISFFGVVFNAVNMIVFIKQGFKDTVNIALFGMAISDIGALLP :  81
6B  : MGPEDNSSVT--SLALQQGGLVDDDVLRIFILVFFVVALGTISFFGIVFNAINIIVFIKQGFKDTVNIALFSLAISDLGAVVP :  81
7B  : MDAGNRSKPE--SPEPQRTGLVNDEVLDVFVVLFFVVASGTISFFGVLFNMVNVIVFYKQGFKDTVNITLFGLAISDMGSLVT :  81
8B  : MDSRNSSQIA-VLASAQTGLLVDDFTYNIFVLIFFVAVMGSASFIGIIFNAINIIVFRKQGFKDTVNITLFGLAISDIGGLMS :  82
9B  : MDSGNNTSQT-KVSESTQAGLVNKDVMNLFILVFFVHASGTISFFGLIFNIINIIVFYKQGFKDTVNITLFGLAISDMGGSII :  82
10B : MGSGNHTSQT-EVLESTQTGLVNKDVMNLFILVFFVHATGTISFFGLIFNIINIIVFYKQGFKDTINITLFGLAISDMGGSII :  82
11B : MGPGNESQTAL--SKITTRGIVNDNIRYIFVLIFFVSATGTISFFGIIFNIINIIVFLKQGLKDSVNITLFSMAISDTGSLIA :  81
12B : MRSGNENQTAL--SEITMSGIVDDGILYIFVIIFFVTATGTISFSGIVFNIINVIVFLKQGLKDSVNITLFALAISDTGSLMG :  81
13B : MGTGNESHTTP--SEPASGGLVSEGLRDLFIVIFFVATTGTISFSGVVFNVINMIVFLKQGLRDSVNISLFGMATSDTGALLG :  81
14B : MGPGNGSQTTL--PESVSKGIVSAGLLNIFVITFYVAATGTISFSGIIFNIINIIVFLKQGLKDSVNITLFSMAISDTGSLMG :  81
15B : MGSGNESQTAL--SKTTTGVLVNDRTLHIFVLIFFVSATGAISFSGIIFNIINIIVFLKQGLKDSVNITLFSMAISDTASLIA :  81
16B : MDSDNDTSQT-EISESTQTGLVNKEVTNLFISVFYVHSTGIISFFGLIFNIINIIVFYRQGFKDTINITLLGLAISDTGGLIT :  82
17B : MGKGNESLAPV--PEKNPTIFVDEDLLYIFVVIFYVTATGTISFSGIVFNIINIIVFIKQGLKDTVNISLFSLAISDTGSLMT :  81
18B : MDSGNESLATL--PAPNPKVFVNDELLYIFVVFFYVTATGTISFSGIVFNIINIIVFLKQGLKDTVSISLFSLAISDIGALMS :  81
19B : MGPGNGSQTTF--SESPEEGIVDPELLNIFVIMFYVTATGTISFFGMVFNIINAIVFVKQVLKDSVNITLFAMALSDTGSLLG :  81
20B : MDSGNHSHVT--PSQSSEKGWVSDELLNIFVVFFLVAAAGPICFFGTIFNAINAIVFFKQGFQDTVNITLFFLAISDLGTLVN :  81
21B : MSSGNYSHTL--LFEQDKEPLIDDDVLNVLIIVLYVAAMGSVCFFGIIFNAVNIYVFFKQGFKDTVNITLFSLAVSDMGALVA :  81
22B : MTTGNISLAT--SPGSPETGVLDIATRNIIVLLSLTIFGGLISLVGIVFNAINVVAFVKQGFKDTVNITLFGLAISDLGVLVT :  81
23B : MASGNS--TTL--DETALTGIVSDSLTNIFVVLFFVSITGTNSFCGIVFNIINIIVFLKQGFKDSVNITLFGMAISDTGSLIG :  79
24B : MSAENKS-LA-TAP----TVFVDDDVLNIFVLVFLVIVSGVISFFGIMFNSFNVIVFYKQGFKDTVNITLFALAISDTGVLVT :  77
25B : MASGNYSHTLPTMFEQDKDPFIDDDVLNVLIIVFYVVAIGLMCFFGVIFNAVNVFVFFKQGFKDTVNITLFSLAVSDMGSLAT :  83
26B : MASGDYSPTSSPMFEQDKDPFIDDDDFNVLTIVFYVAAIGIICVLGVIFNAVNIYVFFKQGFKDTVNITLFSLAISDMGALIT :  83
27B : MSAVNKS-LA-TAT----TGLVDNDVLNILVLVFLVIASGVICFFGIIFNFINVIVFYKQGFKDTVNITLFSLAISDIGVLVT :  77
28B : MSSIFS-----------------------FSFFWLLLLR-VISFFGIIFNSINVIVFYKQGFKDTVNISLFALAISDIGVLVT :  59
29B : MGPGNNSQAR--SSESTQKGLLDDYTLAVLSLILYVFAIGIVSVCGLICNVINIIVFCKQGFKDTVNITLFGLTISDMGCAIT :  81
30B : MDAQNQD-LG-TTPESAQRGLIDDHQFHIFFIILYVVLGGMISFFGVICNIINVIVFLKQGFKSTVNITLFGLAISDMGGLLF :  81
31B : MDAENHD-LG-TTPETAQRGLIDNHVLNICVIILFVAIAGVISFFGAICNIINVIIFLKQGFKNTVNITLFGLAISDLGGLLF :  81
32B : MSSIDYSHTP--LFEQDKEPMIDEGVFNVLNIVIYVVALGIICLFGIIFNAINIYVFFKQGFKDTVNITPFSLAVSDMGNVVT :  81
33B : MASRNTSSAA-ISAATSLIGLVEDYVLNIFTVVFVVFARGTISFFGIIFNLINVIVFVKQGFHDFINVSLFSLDISDMASLAP :  82
34B : MNAENKD-VL-TSPESGQEGILDDHLINIFIIISSVVLSGIISFFGIICNIINVIVFLKQGFKNTVNVTLFGLAISDMGGLLF :  81
35B : MDRGNQSQVN-DVLDASQTDSSDDFVLNIVIIAIRAVASGTISFFGILFNAINIIVFYKQGFKDSVNITLFSLAIADTGGLLT :  82
36B : MSSIDYSHTP--SFEQDKEPMIDDDVFNVLIIVLYVVALGIICLFGIIFNAINIYVFFKQGFKDTVNITLFSLAVSDMGNVVT :  81
37B : MDAKYQD-VG-TTPESVQSGFIDDYLINIFVIILNVVLLGIISFFGVICNIINIIVFLKQGFKNTVNITLFAMSLSDIGGLLF :  81
38B : MASGNESYGT--SFGPRPSKMVNDLVLTIFVIGFFVIILGAISLSGIVTNVINLIVFIRQGFKDNVNISLFSLAISDIGALLP :  81
      M                                         g  sf G 6 N  N   F 4Qgf   6n6 lf 6a sD g

                *       100         *       120         *       140         *       160
1B  : LLWMSIGLNP-YFF-ADPPFDPQEVLYLTSGWPHICFARISGWITAFITLERCLCIAMPLKVKTMITVKRTAIALVSIYVAMI : 162
2B  : SLWLSIGFNP-YFENACLPFDAKEVAYLTAGWPGICFSRISGWITAFIMLERCLCIAVPLKVKTMITVKRTVIALVSIYVAMI : 163
3B  : SFWLSIGFNP-FFANACLPFDPKDVLYLTAGWPGTCFSRISGWITASIMLERCLCIAVPLKVKTMITVKRTVIVLVSIYVAMI : 163
4B  : TLWATVGFNP-LFVNVDLPYNAQEVVYLTAGWPHICFSRISGWITAFIMLERCLCIAVPLKVKTMITVKRTVIALVSIYVTMI : 163
5B  : LLWESVCFNP-WFASADLPFDPQDVVYVTSGWPHVCFARITSWITAFVTLERCLCIAMPLKVKTSITPRRTIYVILGIYLAMF : 163
6B  : LLWESICFNP-SFANADLPFDTQDIVYLTAGWPHVCFARITSWITAFITFERCLCIALPLKVKRIITPRRTIVVIICIYFTMI : 163
7B  : LLWMSICFNP-WFANADLPFDHQDIQYLTAGWPHVCFARITSWITAFVTFERCLCIALPLKVKTILTPRRTVIVIVSIYFVMI : 163
8B  : LIWLSICFNP-WFTNADLPFDTEEIQYVTAGWPHTCFTRITGWITAFVTFERCLCIAMPLKVKTIITPRRTTFVVVGIYSIVI : 164
9B  : HVWMSICFNPYLFADIDLPYDPSDISYVTGGWPHVCFTRITSWITVFATLERCLCIALPLKVKAIITPKRTVLVIVGIFVSMI : 165
10B : HVWMSICFNPFLFADIDLPYDPQDISYITGGWPHVCFTRITSWITVFATLERCLCIALPLKVKTIITPKRTVLVIVGIFLSMI : 165
11B : LLWMSVCFNP-WFINSGLPFDHIEMQYLTAGWPHGLFARITSWITAFVTFERCLCIAVPLKVKTIITPRRTVVVVCIYLTMM : 163
12B : LLWMSICFNP-LFINSGLPFDHIDFQYLTAGWPHVLFARITSWITVFVTFERCLCIALPLKVKTIITPRRTIVVVCIYLFMM : 163
13B : LFWMSICFNP-WFVSSGLPFDHIDVQHLTGGWPHMIFSRITSWITAFVSFERCLCIAMPLKVKTIITPRRTMIVVACIYLILI : 163
14B : LFYVSISFNP-WLVNADLPFDPLDLQHLAGGWVHILFARITSWITAFVTFERCLCIALPLKVKNIITPRRTIVVVSIYLTML : 163
15B : LLWMSICFNP-WLINSGLSFDHKEMQYLTAGWPHGLFARITSWITAFVTFERCLCVALPLKVKTIITPRRTIVVVCIYVTMI : 163
16B : HLWISICYNPYLFADLDLLYDPTDIGYLTGGWPHVCFTRITSWITVFATLERCLCIALPLKVKTIITPKRAVIIIVGIFVTMI : 165
17B : LFWMSICFNP-AMADPSFPFDNEDFQYLTGGWPHIVFARITSWITAFVTFERCLCIALPLKVKTIMTPKRAIIVIVSIYFMMI : 163
18B : LFWLSICFNP-AMANPDFPFDNEDIQYLTAGCPHIIFARITSWITAFITFERCLCIALPLKVKTIITPRRAIIAIVSIYLVMI : 163
19B : LFWMSICFNP-WFVNSGLPFDHLDVQYITAGWPHVLFARITSWITAFVTFERCLCIALPLKVKTIITPKRTVVLVVCIYVATI : 163
20B : IFGMSICYNP-WFVQADLPIHYHDLSYLTTGWLSLCFARISSWITAFVTFERCLCIALPLKVKTIITPRNTVIVILGIYVTMI : 163
21B : LLWASVCFNP-LFAQSVLPVVYQDLVYITSGWPTTIFARISSWITAFVTFERCLCIALPLKVKTIITPRRTIYVIVSIYIGVA : 163
22B : FLWGGICYNP-LFINSGHSFDPDGLCYLTCGWPSVCFARITSWITAFVTFERCMCIAMPLKVKTIITPKRTVFVVVGIFLTMF : 163
23B : LVWVSIFLNP-WLVNSGVTYDSTDVHYLTGGWPHMIFARIISWITAFVTFERCLCIALPLKVKTIITPRRTIAIVIGIYLIMF : 161
24B : HLWMSICYNPQFT-SADLPFDYKDIYYLTSGWPNICFSRITAWLTALATIERCLCVTLTLKVKTILTPRTTSIVVVAIYFSTI : 159
25B : LFWSTVCFNP-LFAQAVLPVISIDLMHITSGWPHTFFSRISSWITAFVTFERCLCIALPLKVKTIITPRRTIYVIVSIYIGVA : 165
26B : LFWMSVWFNP-SIAQAVLPVVSIDLVHITSGWPHVAFARISGWITAFVTFERCLCIALPLKVKTIITPRRTIYVIVSIYIGVA : 165
27B : HLWMSICYNPQFA-SADLPFFYLDIHYFTSGWPNICFSRITAWLTAFVTFERCLCVALPLKVKTIPTPRRTLFVVVAIYFTKI : 159
28B : QLWASICFNPQFA-SADLPFVYLDIHYLTSGLPNICFSRVTGWITAFVTLERCLCVALPLKVKTILTQRRTMLVIVAIYFITF : 141
29B : LFWGSVCFNP-LFIEADLPMVYQDIIYLTSGWPLVCFARISSWITAFVTFERCLCITVPLKVKMILTPRRTVFVVVGIYLGII : 163
30B : MLWYSICVNPILN-GADLPFNTRDVAYLTAGWPRFCFNRITGWLTAYVTFERCLCVALPLKVKTLITQKRTILIVVGIYLAVT : 163
31B : MFWYSICVNPILN-GADLPFYTLDVAYLTAGWPRFCFSRITGWLTAYVTFERCLCVALPLKVKTLITKRRTTSAVVAIYLAVT : 163
32B : LLWMSVCFNP-LFAQSILPVVYHDLAYITSGWPHTIFARISSLITAFVTFERCLCIALPLKVKTIITPRRTIYVIVSIYIGLA : 163
33B : LLWGSICVNP-FFTGSDLPFDPSDVLYITAGWPSVAFVRISSWITVFITFERCLCIALPLKVKLILTRRTTIIVNVAIYTIML : 164
34B : MFWYSICVNPVLN-GVDLPFHIQDVIYITAAWPSLCFSRITGWLTAFVTFERCLCVALPLKVKTIITKRRTIFVIVGIYLAAT : 163
35B : LLAFSIFYNP-WFVNADLSIGQQDVAYLVAAWPHVTFTRITSAITAVATFERCLCIALPLKVRAIITPRRTVMVVVGIFVCII : 164
36B : LLWMSVCFNP-LFAKSVLPMVYYDLSYITSGWPHTIFARISSLITVFVTFERCLCIALPLKVKAIITPRRTIYVIVSIYIGVA : 163
37B : MLWFSICVNPVLLAGTDLPFHMRGVTYITATWPSFCFARITGWLTAFVTFERCLCVALPLKVKTVITKRRTIFVVVGIYLAVA : 164
38B : LLWVSIGFNP-LFVNSDLPFDTVEVLHLTSGWPHICFARISGWITAFIMLERCLCIAVPLKVKTMITVKRIVIVLVSIYVAMI : 163
            6  NP        p       y t gwp   F R6  w6Ta    ERC6C6a6pLKV4t  T 4rt      I5
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           *       180         *       200         *       220         *       240
1B  : GALLPVFYALRLEPIFSPLKNETKFRTVY--IPNGFAIESAVFLINAFSQFVSFIVVIICTIILVQALISKSKWRKSTSSFGD : 243
2B  : GALLPVFYAIRLEPRYSPLKNETKIRIVY--IANGFAIESAVFLINAFSQLISFIMVIICSIILVQNLISKSKWRKSTSSSGD : 244
3B  : GALLLVFYALRLEPRYSPLKNETKIRIVY--ITNGFAIESAVFLINAFSQLITFSIVIICSIILVQNLISKSKWRKSTSSSGD : 244
4B  : GAMLPVFYALRLEPRYSPLKNETKFRTVY--IPNGFAIESVVFLIFSFSQFISLSVVIICTILLVKTLITKSKWRKSTSSSGD : 244
5B  : ACVVPALYSVYLGPKLYPLRNETKIGLIF--IPNGPYIETFSTMLYAFSQIASFFAVIVCTAILVQNLIRKSKWRESTSSTAQ : 244
6B  : AGVVPVYHSVRLRSKFFAQRNTTKIGLVY--IPNGTFIEKFSILINAFAQFASFFAVIVSSAILVQSLVRKSKWRQSTSSTAG : 244
7B  : ASVSPVYYSIRLGPKYFPQRNETKIGLVY--RPSGPFIENVSFSINVFAQLASFFSVIVCTAILVQNLLLKSKWRQATSSSAK : 244
8B  : SGVVPAFYSIRLGPKFYQSKNVTKIGLLY--IPNGVHIENVAVLVNIIPQYVSFLVVIVCTIILVRNLTLKSKWRKSTSNSAQ : 245
9B  : ASLVPACYSIRLGPKYFPERNVTKIGLIF--IPGGIYIENITVSINAFSQLSAFIAVASCTTILVHNLIQKSKWRQSTSSSTK : 246
10B : TSLAPAFYSVRLGPKYFPERNVTKIGLIF--RPGGIYIENISVSINAFSQLSAFIAVASCTTILVHNLIQKSKWRQSTSSFAK : 246
11B : ACVAPIYYAVHFGPKFFPEKNKTMIGLVY--IPNGLLIQSISLTINAFAQFGSFFAVIICTTVLVLNLRRKSKWRQSTSTSAK : 244
12B : ACVAPIYYAVRFGPKFFPEKNRTLIGLVY--IPNGIFIQSISMTLNAFAQFGSFFAVIICTAILVHNLIRKSKWRQSTSSSAK : 244
13B : TCVTPVYYSVRLGPKFFPKKNKTLIGVTY--IPNGSSIENISLALNILAQFGSFFAVSICTAILVHNLLLKSKWRQSTSNSAK : 244
14B : AFVAPVYYSTRLGPKFFPEKNKTMIGLLY--VLNGPSIEKVSLALNVLAQFGAFFAVIICTVILVHNLLLKSKWRQSTSSSAK : 244
15B : GCVAPIYYAVHFGPKFFPDKNKTMIGLVY--VPNGHFIQSILLTINSFAQFGSFFAVIICTAVLVYDLRRKSKWRQSTSSSAK : 244
16B : ASLAPVCYSIRLGPKYFPQRNVTKIGLVF--IPGGIYIENIAVSINAFSQLSAFFAVTSFTTILVQNLIQKSKWRRSTSSSAK : 246
17B : ACVVPVFYSISFGEKYFPLKNKTAIGLVY--IPNGYFIENVSMTITVFAQFAAFLAVIVCTAVLVHNLILKSKWRRKTSTAAK : 244
18B : ACVAPMFYAIGFGQKYFPLKNKTLIGLVY--IPNGYFIEYVSMTISAFAQYAAFLAVIICTAVLVHNLLLKSKWRRKTSTAAK : 244
19B : ASVAPVYNFVRLWPKYFPKQNKTTIGLVY--VGNGPFIENILLAFNVLGQFGSFFAVSICTAVLVHNLMLKSKWRQKTSTAAK : 244
20B : VSVAPVYYAIGLGPKYFPQLNATKIGLVY--ISNGVSIENVSLSINAFSQLFSFFATITCTIILVHNLLLKSKWRQSSSSAVQ : 244
21B : ACVAPVFYSISLGPKYISEVNMTMIGIVY--ISHGVFIEGISLLISVFSQLVSFFSVIVCTVILVQTLLIKSRWRQSSSSAAK : 244
22B : ANVVPVYCSISLGPTFFRELNKTMIGMVF--IPNGETIEKVALSISIFSQFASFFVVIVCTVVLILNLIRKSKWRQSTSSSAK : 244
23B : AFVTPVFYSVRLGPKYFPKKNQTLIGIIY--IPNGPTFENVSFAVNVLAKFGSFFAVIICTVVLVHNFLLKSKWRQSTSTSAK : 242
24B : AATTPVFYSVRLGPKHTPQINETKIGLFY--IPNGVFIESISSFIHTISQCISFILVFVCTVILVITLRRNSKWRQSTSSSAK : 240
25B : ACVAPAFYSIRLGPKHVSEVNMTMIGIVY--TSDGVFIEGISLLISAFSQLVSFISVIVCTVILVQNLLIKSRWRQSSSSTAK : 246
26B : ACVAPAFYSISLGPKYDSEVNMTLIGIVY--TTHGVMIESISFLLSAFSQLVSFFSVIVCTVILVHNLLIKSKWRQSSSSAAK : 246
27B : AATAPVYYSIRLGPKYIPQINETKIGLFY--VPNGDFIESISSIIHTISQFVSSIIVFVCTVILVFTLRRNSKWRQSTSSSGK : 240
28B : VSLAPAYYSVRFGPKYILRRNETKIGLFY--VANGALIESISISIHTIFQLFSFVIVFVCTTILVFNILRKSKWRQSTSSSAK : 222
29B : LCVVPLYYAMGLGPRHFPERNVTIIGSVY--NENGPFYEGVALTLSAFSQLASFFAVIICTGILVHNFLLKSKWRQSASSATR : 244
30B : ASVAPVFFAVRLGPKYFPDSNVTKIGLVH--NPNSQFNESISATINSFSYLASLFIVILGTAVLIQNILRKSKWRQSTSSSRG : 244
31B : ASVAPVFYAVRLGPKYFPHTNVTKIGLVH--NPNSQFSESISATINSFSYLASLFTVVLCTAVLIHNILRKSKWRQSTSSSKG : 244
32B : VCAAPAFYSVSLGPKHDSEVNMTMLGVVY--IPNGVFIEGISLYISAFSQVVSFFSVIVCTVILVQNLLIKSRWRKSSSSTAK : 244
33B : ASVVPTYCAFRLEPKYFSERNETKIGLVY--NFNGVLLLNITSYFNVISQLVCFVLVVVCTAILIYKLHQKSRFRLMAANASV : 245
34B : ASIAPEFYAARLEPKNFLHINVTKIGLIY--TPKGKNIKKILRKINLFSYLASLIIIILCTAILIQNILRKSKWRQSTSGSCR : 244
35B : ASVVPVYFSVSLGPKFFSERNQTKIGLVY--TSNALYIENISLSLNAVFQISAFLGVTICTIILVQNLLQKSKWRQLNSNSAN : 245
36B : ACAVPAFYSVSLGPKHDSEVNMTMLGIVY--TANGVFIEGISLYISSVSQVASFISVIVFTVILVQNLLIKSRWRKSSSSSAK : 244
37B : ASVSPVFFAARLGPKYLPHRNATKTGLIYMYTSNGQFIRKISTSIYFFSCQASFFTVILCTAVLILNILRKSKWRQSTSSSAV : 247
38B : GALLPVFYALRLEPRYSPLKNETKFRMVY--IPNGFAIESAVFLINAFSQLITFSMVIICSTILVQNLISKSKWRKSTSSSGD : 244
          p      l p      N T  g        g              q   f     c3 6L6     kS45R s s

      *       260         *       280         *       300         *       320         *
1B  : HDSFSNRDKKVVKLVLFIAIIFIVCFLPSAINFLASSLEPEFNTYGKYGDLFVLMWSFSANLSATNSAVNIFVYYKMSSKYKQ : 326
2B  : HDSFSNRDKKVVKLVLFIAIIFIVCLSPSVINFIAQSFEPEYTASGKYGDMFLLIWSFSSCLKATNSAVNIIVYYNMSSKYKQ : 327
3B  : HDSFSNRDKKIVKLVLFIAIIFIVCLSPSVINFIAQSLEPEYTASGKYGDLYLLIWSFSASLSTTNSAVNIFVYYNMSSKYKQ : 327
4B  : HDSFSNRDKKVVKLVLCIAIIFIVCLLTGAIINVAQSLEPEFNITGKYRDLFVLIWSLFSFLSAANSAVNIFVYYNMSSKYKQ : 327
5B  : QESFSNRDKKIVKMILLIAVIFIVCFLPSTASFIAQTIKPEYNFVGRYQNLFLLSWAIFTSVAAVNSTVNIFVYYKMSSKYKE : 327
6B  : QESFSNRDKKVVKMILIIAVIFIACFLPSAVTFIAQSITPEYNIVGRFQNMFLLTWAIFTSVAAVNSSVNIFVYYNMSSKYKD : 327
7B  : QDTFTNRDKKVVKMILFISSIFIACFLPSAVNLIAMIISAEYSIVGRYQNMFLVTWAIFNSLEANNSTVNIFVYYNMSSKYRE : 327
8B  : QNSLSNRDKKVVSMIILISSIFMACFLPSAVNQIIMIVSVEYSIYGINRNLFLLSWSICKSLEAVNSAVNIFVYYNMSSRYRE : 328
9B  : QDSFSNRDKKVVKMILLISIIFIICLLPGSVNLVTTFINHEYNMAGRYRNLFISLWGIWVSLEALNSSVNIFVYYNMSSKYKN : 329
10B : QDSFSNRDKKVVKMILLISIIFIICLLPGSVNLVTTFINHEYNMAGRYRNLFISLGGMWVSLEAFNSTVNIFVYYNMSSKYKD : 329
11B : QESLSQRDKKVVKIVLLISTIFIACFSPAAAAFIAMSIVPGYNIVGRYQNMFLLTWSMFKTFKATNSTINIFIYYNMSSKFKE : 327
12B : QESLSQRDKKVVKIVLLIATIFIACFFPGAVAFIAMSIVPEYNIVGRYQNMWLLTWSMFKAFKALNSTVNIFIYYNMSSKYKE : 327
13B : QESLSQRDKKVVKLVLLISTIFIACFFPGAVAFIVMTLFPGYNIVGRYQNIFLLTWSMFTVLQATNATVNIFIYYNMSSKYKE : 327
14B : QESLSQRDKKVVKIVLLISTIFIFCFFPGAVSFIAMSTVNGFNVNGRYHNIFLLTWSMFKTLQATNSTVNIFIYYNMSSKYKE : 327
15B : QESLSQRDNKIVKIVLFISTIFIACFSPAAAAFIAMSIVPGYNIVGRYQNMFLLTWSMFKTFKATNSTINIFIYYNMSSKYKE : 327
16B : HDSFSNRDKKVVKMILLISIIFIICLLPGSVNLITTFINDEYNMAGRYRNLFLCSWGICGFLDALNSTINIFVYYNMSSKYKD : 329
17B : KDSLSQRDKKVVKMVLLISTIFIACFFGDAATFIAMSVVPGFTILGTHRNMVMLTWSVFKTTKAINSMVNIFIYYNMSSKYKE : 327
18B : KDSLSQRDKKVVKMILLISTIFIACFLGDAATFIAMSVVPGLTMFGRNRNMVLLTWSIFKTTKAINSTVNIFIYYNMSSKYKE : 327
19B : KESLSQRDKKVVKIVLLISTIFIVCFFPGAVSFIAMSVIPGFGIVGRYQNTFLLIWSIFKTLQATNSTVNIFIYYNMSSKYKE : 327
20B : QKSFSKRDAKVVKMIVFISSVFIACYLPSAVNFIATVIFDEYGVLGRYQNMFVLTWVIFLCLVATNSTVNIFVYYNMSSKFRE : 327
21B : QESLSNRDMKVVKMVLSIAVIFIVCFSPSAASIFAMMSVTEYSIDGEYQNMFLLIWAISFLLVVTNSAVNIFVYYNMSSKFKE : 327
22B : QKSVSNRDKKVVKMILSISIIFIACFLPSGVNFIVIFFLPEYKVTGKYQNLFISTWCLCKALGTLNSSVNIFVYYNMSSKFKE : 327
23B : KESLSQRDKKVVKVVLFIATIFIACFSPGAASVVAISNVPGYSITGRYRNMFMVTWSIFTTIQATNSAVNIFVYYNMSSKYKE : 325
24B : QENVLSKDKKVIKMILTISIIFISCYFPALVNALATLIFVEYTVFGAYSNLFLLNWGLAFTITAANSAINIFVYFNMSKKFRQ : 323
25B : QESLLNRDMKVVRMVLSIAVIFIACLSPTVANIFAIMSIPEYSFYGEYQSIYLILWALSFLLVATNSAVNIFVYYYMSSKFKE : 329
26B : QESLSNRDMKVVKMVVSIAVIFIVCFSPSAASTFAMMFFPEYNFYGEYQNIYLFIWAICFLLVATNLAVNIFVYYYMSSKFKE : 329
27B : QGDILSKDQKIIEMILSISIIFISCFLPGLANAFGKLISVEYSVVGAYSNLFTLTWGLSFTITAGNSAVNIFVYFNMSSNFRQ : 323
28B : QGSFSSRDQKVVKMILFISVIFILCFLPSAANNFAMMTSVEYSVVGVYSNMFVLTWGLFTTLVAANSTVNIFIYFKMSSKFRQ : 305
29B : QEFLTNRDKKVVKMILFISSLFIVFFSPTAANTFVMMISSEYRTGGRYQNVYLLNWAISCLLVGTNSTVNIFVYYSMSSKYRK : 327
30B : QESFLNKDKKVVKMILLLAIIFISCSIPSVASVIVWILVPEIRASGRYANLALVFHGIIRILEAVNSSVNILVYYNMSSKYRE : 327
31B : QESSLNKDKKVVKMILLISIIFISCSIPSVASVIGWILVPEIRAGGRYANLALLFHGIIRILEAVNSSVNIFVYYNMSSKYRA : 327
32B : QESVSNRDMKVVKMVVSIAGIFIVGFSPSVANIFTMLAIPDFNYYGEYHHIYVIVWGISFLLVTTNSAVNIFVYYYMSSKFKE : 327
33B : QKSLSIRDKKVVRMVLFISCIFIICHLPSVSNVLAILIFPEYNMGTRYQNLYLTTWSMCNTLTAMNSAANIFVYYNMSSKFKG : 328
34B : QESFLTRDKKVVKMILLISIIFISCSVPGAVGLIVTILILEFRAASRFANLIQLYFGIARILEGVNSTVNIFVYYNMSSKYRE : 327
35B : QEAVSNRDKKVVKMILFISVIFIVCLLPGTVNIIAQFTTEKYNITDEYRNLYILTWTICNSLEGINSTVNIFVYYNLSSKYKE : 328
36B : QESLSNRDMKVVKMVLSIAVIFIVGLSPSVANIFTILAVPEFNYYGEYHQIYLILWAISFLLVTTNSAVNIFVYYYMSSKFKE : 327
37B : HGSSLNRDKKVVKMILILSIIFISCSVPGAVGVLCQILIPELSPAGRYANLVTLCLGIIRILEGVNSMVNIFVYYHMSSKYRK : 330
38B : HDSFSNRDKKVVKLVLFIAIIFIVCLFPSVINFIAQSLEPEYTASGKYGDLYLLTWSFSVSLSATNSAVNIFVYYNMSSKYKQ : 327
            4D K66 666 6  6F6 c  p                g                  Ns  NIf6Y5 6Ss 54
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            340         *       360
1B  : ILDKMLLRSTKG---------------- : 338
2B  : TLDKMLLRCKKG---------------- : 339
3B  : ILDKMLPRCTKG---------------- : 339
4B  : ILDKMFLRGTEG---------------- : 339
5B  : ILDKMLR-----------MNGEKSV--- : 341
6B  : ILDKMLR-----------LNREKGS--- : 341
7B  : ILDKMVN-----------KKQIKK---- : 340
8B  : ILDEMLN-----------RNKGKK---- : 341
9B  : ILNTMLH-----------INN------- : 339
10B : ILNTMFH-----------IKN------- : 339
11B : IFDEMFHRNRE--------IDHQDNTI- : 346
12B : IFDEMFHRNRE--------TDHEDNI-- : 345
13B : ILDELLRRKKG--------NDNQSTKNY : 347
14B : ILDEMLHRKKG--------NID------ : 341
15B : IFDEMFHRDRK--------TDHQEI--- : 344
16B : ILNTLLC-----------IKK------- : 339
17B : ILNKMLHIKQV--------KVEKDA--- : 344
18B : ILNEILHIKQV--------KVEKGT--- : 344
19B : VLDNMLNRKSD--------KHG------ : 341
20B : ILNDMLNIKRT----------ET----- : 340
21B : IIDEMFNRMRG----------KCRA--- : 342
22B : IVDKMFPGIVG-----KKETKKISNGP- : 349
23B : ILDGMLRRKGG--------DGDK----- : 340
24B : ILKEMLH-----------VKKEVRE--- : 337
25B : ILDETLNRMRG----------KCGV--- : 344
26B : ILDDTLKKVRG----------KCCA--- : 344
27B : ILKEMLQ-----------INKELRE--- : 337
28B : ILIEMLH-----------INKEVHG--- : 319
29B : ILDEMLKRKEGNRGPSERKAVRCIQSL- : 354
30B : IFDQMLHRIAR------KRSTQTEQ--- : 346
31B : LFDQMLQRIPR------KGNTQVEQ--- : 346
32B : ILDDTLKKVRG----------KCCV--- : 342
33B : ILDKILR-----------INQEISE--- : 342
34B : IVDQMFHRIVR------KRNIQVEQ--- : 346
35B : IMDKMFN-----------RNKD------ : 339
36B : ILDETLKKVRG----------KCCA--- : 342
37B : IADQMWHRITR------RQNTQVEQ--- : 349
38B : ILDEMLLRRSKG---------------- : 339
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                 *        20         *        40         *        60         *        80
1C  : -------------MPHNEMVTSINTTEGEITEPPTHLFQG-LIDDETFEIFGNVSIVLSFGMCLVGSIFNCINIAVFATLGAK :  69
2C  : -------------------MSLVNETERELKGSHNISEHGGLIDDQTLRIFLLVFTFVTLGLSLLGSAFNCINITVFLTLGAK :  64
3C  : ----------------------------------------MSTISHEAREMVVFYMSLFIATPASLIGIVANCINGIVFIRQGAN :  45
4C  : ----------------------------------------MASVED----LVGLYMGFLVALPVALLGVAANLINAAVFLHQGVK :  41
5C  : ----------------------------------------MSTISNEDRELVVFYVSLLIATPASLLGIVANSINGLVFLRQGVN :  45
6C  : ----------------------------------------MSALSTEVREQVELYVSTFVSAPIALMGITANIINFVVFLKQGVK :  45
7C  : ----------------------------------------MSTISNEVREQVELYMSVLITGPMTLLGIAANLINFVIFLKQGVK :  45
8C  : ----------------------------------------MSTISDGVREQVELYVPMFITGPVTLLGVAANLINFVIFLKQGVK :  45
9C  : -------------MSSNYVELR-----DIRDYMSEARNKSIISHHVKWCIDIALLFMSLPFLSMCGILFNITNVIVFTKTGLT :  65
10C : -------------MTISTVEKMSNISFDVRTHLSTGDG--FVSDEAKVYVDIFLGLISLPIISLSGVISNFINMVIFTKSGLT :  68
11C : -------------MSSNDSESG-----DIRGYMSEAGSKFIINDHVQWYIDIAFLFVSLPFFSVSGILFNITNVIVFTKTGLS :  65
12C : -------------------MN-TTSIEPAVSSVSKDPVSD---ELLGMVIFAVGM--CTHTSIIVIGCAANVINLVIFCKLGLS :  59
13C : ----------------------------------------MEGLLSDEDFAIFQHVNAYAGITFSVLGIGSNFLNIKTFVAMGLD :  45
14C : -------------------MSVYPNNSVQRVEESVIGGLPLVSDEIKSIFIIICLVFVIGALGVFGIFSNSVNLTVFFKQGLK :  64
15C : ----------------------------------MARQETGILSTGAQEIINLVNMCVLQPLILTPGIIGNVINIHSFLQIGLK :  50
16C : -------------------MNLTTVFPPAHNVMSRDPVSD---ELRASMTIAFSL--CLHTSIITTGCVTNVINAIIFLRLGLS :  60
17C : -------------------MRIILRTTPRLNSSSLARYIS---IDNLTIVTLVIR--SFNTSMMVFGIVSNICNLFIFARLGVT :  60
18C : -------------------MTTVVSETCVLNCTVTAPVTSHPVVYSVEMIRNVIR--TTNMCIAVFGILTNLCNVEIFRRTGIL :  63
19C : MCGWNSSEKSFDTAEILTCSYANNSESQTTAVSSTEVTDLISDEVRELVVELIMNVIIEISLRFWGIISNIVNILIFFKLGLD :  83
20C : MS--SLVVMSVHNISSLAVTSVDNISCCLPGVVGGQRSGLISDAVSAIVTDLVLRVVVQFMLGVFCIVANIVNMIVFIKIGLE :  81
21C : MS--SLVVMSVHNMSSLAVTSVDNVSCCFPGVVGGQRSGLISDAVSAIVTDLVLKVVVQFVLGVFCIVANIVNMIVFIKIGLD :  81
22C : -----MNSSVCSVVFLGAVTPCVTDVTITRPHPEGEASRGGLITDDQLTEALVIYSVLICSFEITGLVFNTFNLIVFVQMGVS :  78
23C : -------------------METNSSLGPRSSPAPIELLPH-----DVFIIFGQILLYGVRPTAIVLGLFSNVLNILVFYKMGLK :  60
24C : -------------------METNSSLGPRASPAPTEILPL-----EVYVIFSHILIYGVRPTAIVLGLFSNGLNILVFYKMGLK :  60
                                                                          g   N  N   F   G

                 *       100         *       120         *       140         *       160
1C  : DCVS-VCLLSLAITDLLSLFFSLIIGVCQILLAS----QAYFYLDPEAVTYPLAYLSSVTYDMSTYITAFISLERCLCVAMPF : 147
2C  : DCVS-VCLLSLAVSDFTCLFLGAICGVCDILDAY-G--SADFYVDPRGLYYQVIFISSMSYDISTYITAFISLERCLCVALPF : 143
3C  : ECVS-VCLLALTLSDLVSVLFGSVLYSHNLLMHW----QIDTVVDPFAFVFFMSYLCAMSYDISQAVLAFVALERCLCVALPL : 123
4C  : DCVS-VCLLALTISDLCSVLSGGIIYTYNLLIHF----NVYSVIHPYSFAYVVSYICTMFYDISQAVMAFVALERCLCVAMPL : 119
5C  : ECVS-ACLLALTLSDLVSVLCGSIHYIHNLLIHW----RIDTVIDPFAFVFVISYLSALFYDISQSVLAFVALERCLCVALPL : 123
6C  : DSVS-VCLLGLTISDFANVLIGGVLAIYSVLVGF----GLSSVFDQLAFTFVMTYGCAMFYDISQGIIAFVALERCLCVAMPL : 123
7C  : DCLS-VCLFALTISDFCSVLNGGAFSAFNILQHL----DVDSVIDPVGLAFIMAYSCAVFYDISQGIIAFVTLERCLCVAMPL : 123
8C  : DCVS-VCLLALTISDFGSVLVGGALQIFNILHHL----DVGSIIEPFSFVFVATYGCALFYDISQGIIAFVALERCLCVAIPF : 123
9C  : DCVT-IAVLFLATSDFLLCFTTLFYVFSSVTKAD-TSYIPGSNGLYNYLFFLSTWTRAMFVDTSLFLTVFVSLERCLCVTWPL : 146
10C : DCVT-LAIFFLAISDFCISFFTFFHTMCFFVMK----FAPTTMFDFFSLYFISAWTRSMFADVSLLLTVFVSLERCLCVIRPL : 146
11C : DCVT-MAVLFLATSDFLLCFTTLFNVLSSVTKAD-NSYIPGSYGLYNYLFLLSTWTREMFVDTSLLLTVFVSLERCLCVTWPL : 146
12C : DSLS-VSFFFLSISDFAVLFLNLLGRSLYILN-L-YFDVNFGILDPPSFLYIMSYYSRIPYDTTVCLTTYTAVQKCCCVVFPF : 139
13C : DAVT-VSFLGLSISDFFISIIMFCIGISMSFHAIELSLGIRYTYDPFMIVLFFTNVGIALYIVTVLTTLYLAVARCMCVAKPL : 127
14C : DSVS-VQLMLLSAVDLSSSCMALTLAILEGLYNY----NAKSRVDIMSLIFLTGPLRACSHSMSTVCVAFLSVERSFCVRFPL : 142
15C : DSVT-VSFFALSISDLAVLLIAYVNSICYILFRA----SKSWPVDMFGLMYIGVWYYQMVYDVSMLITTYTAVQKCCCVALPF : 128
16C : DSIS-VSFFFLAISDFVILFQNLLARVFGILD-S-YLGVNFGMLDIRSLGFLLTTFASVPYDITVCITLYTAVQKCCCVVFPF : 140
17C : ETATSVTLFVLTIADLSFLLIFLVSTLIRFVEFA-GLRTSFEGIPLFMISFQVVSYFHMMYTTSAVITVYLTVQKCCCVALPF : 142
18C : ESATSITLFALTVTDLLSLVLFIVNPLLDFR-----IGTSPP--LVYTLYVQVLYSFQMTYKMSTFFTVYLTVQKCCCVALPL : 139
19C : DGVA-VSFFALAVGDLSWSAIGLSVLICNMTD---VMFKVYPYVRLRSLAYILSWYASVFADWSVLVTVFLSVQKCACVAIPL : 162
20C : DGIT-VAFFALAISDLLFVGFYLMVNVLAFLH---NVLKLRQYLHFGSLAFLLVWYSYAFFDASMLITVFLAVQKCACVAIPL : 160
21C : DSIT-VAFFALSISDLMFVGIYLVVSILSMLY---NVVKLRQYVHFPSIAFQLVWYSDAFFDASMLITVFLSVQKCACVAIPL : 160
22C : DPVN-VCFFALAVSDHCLLATGLLAQIAYNDIGS---MPRKLSVNSLHMTMILLFYAHMFLDISILISTFISLQRCCCVAWPL : 157
23C : DSVN-ISFFALSLSDGAYLTLSSVSAVCDILVLANLGRQVMWVIQPSVILFFIYWYAVIFYDTSMLITVFIALVRCCCVAIPL : 142
24C : DSVN-ISFFALSLSDGAYLTLSSVSAVCDILFVANLGRQVMWVIQPSVILFFIYWYAVIFYDTSMLITVFIALVRCCCVAIPL : 142
      d         L   D                                         d 3     5  6 4c CV  P

                *       180         *       200         *       220         *       240
1C  : RFKYMFTFKRAVATVVIICTLTFGCYLPHFVTSGIRPQWDVSTNTTRLLLWLSEDMPAITTFLNLWNHLILGSTSLVIVTVST : 230
2C  : RFKELFTFKRAVLAMATIFCLTFCCYLPHYVTSGLRVQWDPRTNTTRVLLWSSKDMPAITAFLDLWNHLILAVTSVVIVIVCT : 226
3C  : KFKELFTFRRAVIVVSALWLFTVAAYLPHFTSSRLESRWDPAANRTRVFMWVAEYRPVVELYLNTFIHIAMSTLYELIVLVST : 206
4C  : KFKELFTFRRAVVIVSALYIFTVAAYVPHYISSGLVGRWDPTTNTTRLFLWVADYRPSVELYIRFFLQTSMASLYQVIVLVST : 202
5C  : KFKELFTFRRAVIVISSLWLFTVAAYLPHFTSSRLESRWDPAFNRTRVFMWVAEYRRVVELYLNMLIHITMSTLYELIVLVST : 206
6C  : RFRELFTFSRSLIAVFFLYLLTIGAYVPHFVTSGLTWRLDPVTNTSTISVWLADNRAEIELYLNLFIHVIMPTLYQVIVLVST : 206
7C  : KFKDLFTFQRSLYVVIFIYTLCIGAYVPHFATSGLHWRHDPVTNSSKIFVWLSDNRVEVDLYLNTFMHVTMPTLYQVVVVAST : 206
8C  : RFRDFFTFWRSVFVVFTLFSMTIGAYIPHFVTSGLHWRHDPATNSSRMFVWLSDNRVEVDFCLNIFMHVTMSTLYQVSVMIST : 206
9C  : KFKTLFTTKKAAAICTAITCGTIVSYIPVQLSQGIREQYDVTTNRTHLMLWYSEDRKEIIKYSNSFHRFFLHNASLASITISA : 229
10C : TFKLIFTAKTSVIMCGVISSVTVLSYGPVMASQGVRWEFDDVTNQTRLMLWLADYRPEVVKYSNILHSITLAKAALISITISA : 229
11C : KFKTLFTTKKAAVISTAITCGTIVSYIPVQLSQGIREQYDVTTNRTHLMLWFSEDRGEIIKYSNSFHRLFLHNASLASITTSA : 229
12C : HFQRAFTRNQSIFINIGIFFIVFLYYLPLMPHQNLKLEWNPSTNSTRLLLWFSDDRDMYYEAVE-SIRNILITTSEAIVFLCL : 221
13C : HFKHVFTKSRSIAILTVFFVFCVGIYIPVFNSLGIAKTFNPVLNGTRYTIWFRQGDEEAKDVIYFITHVVIPFGTQIIVIVCI : 210
14C : HFKTMFTKPRVTTCVLLMLFVTIVLYAPNFTYISFVWLPDPRYNTTRLFMIVSPGHNTFLLFEHSLLSAFIPVVVQIVLVISA : 225
15C : RFKAIFTTRTSVVVIIVSFVFCVACYAPVLASQDLQKIR--TNNMTRLVPWFSSLRYDAIAANDIIARVILQNATQVIVLACL : 209
16C : RFNRVFTRSRSIFINIFIYLVVVCYHIPAIASQHLRLVRNPSSNSTKLSVWFSPDRNRNVAALG-LLRNVVITTAEIVVSFCV : 222
17C : HFKTIFTSEKALLTLVILVVVVFAFYIPLFASIGFQSVVDPTQNTTMVVFWFSEDFSVRVLVFQNTMDVVVPTAAQVIVIVCL : 225
18C : KFKFIFTIKKVLATLLVLTLVCFACYAPLFLSIGFRWAFIPRLNKTVVIPNYSPYRQTIVIILYPLVLAADPTISQVVVISCL : 222
19C : FFKQLFTKRRCSVILILIFLADVTWYAPILSSLRMVPAYDRFTNSTRLRGKTAAYFRPVYDLWRRMNRVFLPAFSLSVVSICQ : 245
20C : LFKNVFTRSRCVVVVVVIYVGTFAWYMPLLSQQGMLERFDSRTNTTTLLYKKPPHAMFMLNLFKSVSRTVLPGICLSLIIISV : 243
21C : LFKNVFTRSRSAVVVVVIYVGTFTWYMPLLSQQGMGERFDPRKNTTTLMYKAPPHFPLMLQLYNSVSRSVLPGVSLSLIIISV : 243
22C : KFKSVFTTKRSLLVIICIHLYALASYFPLFLKQTLHSAPDLLRNSTTWIMTFSKERSRLVSIIDILNQVSLCIITQVVVLICL : 240
23C : KFKGVFTRSRTVVCIVVITVSTVLTRIPTLITQEIVAQYDVINNRTVYSLRYTADRPQAIELNDIMNRTAIWWIAITTMFVCV : 225
24C : KFKGVFTRSRTAVCIVVITVSTVLTRIPTLITQEIVAEYDAINNRTVYRLRYTADRPQAIELNDIMNRTAIWWIAITTMFVCV : 225
      F   FT                y P             N 3                                   6
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      *       260         *       280         *       300         *       320         *
1C  : QVMVFSLQKSSRFQRQGTTKPSE-DPKRCKATKEMWA-----------------------------------------DGE : 269
2C  : HIMVTGLKKSSQFQRRGAARPSEPDGLNNFKTSNEVG-----------------------------------------EGE : 266
3C  : YVMVNALKRSSEFRRRKETAVPGNNMLEDKQ-------------------------------------------------R : 238
4C  : YVMVWSLERSARFRGRMDVIPPG-TVTKGAQ-------------------------------------------------E : 233
5C  : YVMVMALKRSSKFRRRKETAALG-NMLEDKR-------------------------------------------------K : 237
6C  : QVMVIGLNRSSKFRNRKETEEKAAKSDDSAQPPQSHKILEPPAAEETITAG---------------TDSYEMRHHGTENCATN : 274
7C  : HVMVIGLKRSTKFRERKKTVEKAVTDKEA---------------------------------------------------- : 235
8C  : QFMILGLRKSSKFRERKEVEKKAAKVEESGQVSPSQQILQTSTDGETPGCESKDQPTKDRRTEKHGAESQESNSEGTFLKSKH : 289
9C  : TLMAVRLRASAAFRQR---------------------------------------------------------------- : 245
10C : IVMAIRLRASSKFRKS---------------------------------------------------------------- : 245
11C : ILMAFRLRASAGFRQR---------------------------------------------------------------- : 245
12C : VIFVYKLKASSRFHSAHSKGGMAPPKE---TNEEAEE------------------------------------------- : 255
13C : VVMAWNLIQSSRFRQQTSKSQADGKEAEDANSSS---------------------------------------------- : 244
14C : VLMTSALRKSVMFRQTTSESNVKQRCVTGSSHGMENQRVEN--------------------------VFSSIQSQVSSTKCT : 281
15C : VVLFKNLYNSSKFRQSASLNSSLSKLTTEP-------------------------------------------------- : 239
16C : IVFAYKLKASSQFHSIRAKGEFPSQKEEGTVDPEIEEN----------------------------------------- : 260
17C : IILTNRLRETSKFRQRSENKANKNATKTSKAKKSDAQG----------------------------------------- : 263
18C : FVLTGKLKQATKFRMSSELPGSKEPSKG---------------------------------------------------- : 250
19C : IIMVIKLKEALKFRKSVA----------TDSRGAKNV----------------------------------------- : 272
20C : IVLTIKLKQASKFRQASASHGNKDNNKNSDSSSTKQN----------------------------------------- : 280
21C : IVLTIKLKQASRFRQASASHNNKDNNKNSDSSSTKQN----------------------------------------- : 280
22C : GILTTSLRSASKFRKSARSEQTES-------------------------------------------------------- : 264
23C : VVLATKLRASSEFRKSHDRGATS---------------------------------------------------------- : 248
24C : IVLATKLRASSEFRKSQNCGAS---------------------------------------------------------- : 247
            L     Fr

          340         *       360         *       380         *       400         *
1C  : KGEDAPSCNERYGQTTSSQHGSPLDDKETNKMDAGRRSNNNLTVKNRRVVKMVSILATICILCNMSRLMIVV---ALRIETDI : 349
2C  : ENVLRDPDSRRDNNISRPYCPTNVEKESSNKIKVEK-SPQTLSAKNRRVVKMVSTLAIVSILCNTSRLLFVV---ALRAEPDI : 345
3C  : GDIHFKINVVVMHEQGDTNINKKNKQDQERNEVSQGQFHDNMTVKNLRVVKTVTALAIISLVCNAVRIVYVY---VQRIIPGI : 318
4C  : GSTHSTGTVEGEKSEPNQGVGG-----------KQGHSQ-HMSDKNMRVVKTVTALAVMSLLCNSVRLVVVF---LTKIVSGM : 301
5C  : GDTHLKNNMEITHEHSDAKVTG--KQHQERNERSQGQGQDNMTVKNLRVVKTVTALAIISLICNAFRIGFVY---VQRIIPGI : 315
6C  : DSSQTAESVRKRNDRPTKTKNAKDPKTGKDQTTGPQTKDNTFSPQNRRVIKTVSALAVIFLVCNTIRLIIIY---MYMAVPEL : 354
7C  : ------TKDHQKNNIEKIPHEAKQHRT----------KDSSSSLQNRRVIKTVTALAVIFLVSNTVRLVIIY---TVMSIPDL : 299
8C  : QIQDSPTKDYQTHNKGTINHTTRQNQANYKHRKDKQMKERACSVQNRRLIKTVSALAVIFMVCNAVRLTGIY---AYMAYPDL : 369
9C  : ------ATSAEPGDKNNIRA---------------------LSRKESRVVTMVFLIVLACVILLLPTMLFVS---LRRVFPEL : 298
10C : ------ATSAADSS-SKENS---------------------LSKTDNRVVMMVFMVAVVCIVLYSPTLAFVY---ARRIFPDF : 297
11C : ------ATSAEPGDKNNTRA---------------------LSRKDSRVVTMVFLVALASIILLLPSMLFVS---ARRVLPDL : 298
12C : -----GKNR-----------------------------KKSPKTKEVRAIEAVTMVSTLFVACTFPSIVLIY---ARLLIPGF : 301
13C : ---------------------------------------VKLSGKELQAVQQVVLISIIFAVFNMPMILIGV---FGITEPEF : 285
14C : RDHAHRRAELSSDPRVTKKATENKISESKPVQTKIEKNRLGLGVKERRVVQMVACVAALFMSCNLAQMLVVATTIVRHFLPEF : 364
15C : ---------------------------------------KHAADTKKTVTDQPTTHVAISAVQNKTSGISSK---SSHTQQVS : 280
16C : -----GKTRGNETDTKRKNKTGQNGHQTSSGEGRVGSSRKNQTSKEVRATQAVTMVSTLFVSCTLTSVVIIY---VSLLYPAF : 335
17C : -----SNVK---------------------------DVRPELSGKELRAVQSVIVLVLMFVVCNLPSVLNRY---ASYIEPEY : 311
18C : ---------------------------------------AQLSGKELRAVQSVVVVAAMFVVCNLPSVLIMY---ASYVEPEF : 291
19C : -----------------------------------------SEKAKEVRVIQVVVLVSTIFVVCYIPDIVRRI---CEIVFPKF : 312
20C : -----------------------------------------PSSSKELRVIKAVTLVSTIFVVCYIPDIVVSC---CQIFFPEF : 320
21C : -----------------------------------------PSSSKELQVIKAVTYISAIFVVCYIPNIIVSC---CQIVFPEL : 320
22C : ---------------------------------------KTISRKEDQVVKTVTLLSVVFVVTYTPAVMLAL---IQIFVPEF : 305
23C : -----------------------------------------QASRDDRVVKMVILVTVLFLVLSLPFMLYSA---VRQLVPKF : 287
24C : -----------------------------------------QISRDDRVVKMVILVTVLFLVLSLPFMLYSA---VRRLVPKF : 286
                                                  r    v                          p

        420         *       440         *       460         *       480
1C  : NYGR---LYEKFFVVIMIVSLVFHVINSSSTMFIYLKLNPSYRNTFCQMFGIDQSN--------------- : 402
2C  : NFGH---RYHNLYMVILALAYIFQVINASVNIFIYLKLNPSYRKTFSQIFGIGQTK--------------- : 398
3C  : TFGG---RYSNEFILCNVAIFIFQTVNSSANILVYYKMNDSFRKTLKGILFGVNSIS-------------- : 372
4C  : TFAG---SYRNVVVLLTVGTFVCQTINSSANILVYYNMNTSFRNTLKTMVTVTMCSP-------------- : 355
5C  : TFGG---RYSNEFILGNVGVFVLQTVNASANILVYYKMNDSFRKTLKSITCGVESIS-------------- : 369
6C  : DFGK---RYHNVVVLVNMALFLFQTVNSSANIIVYYHYNASFRNMFKLVFC---SSEKGG----------- : 408
7C  : QYFQ---RFHNELVIAGLVLFVFQTINSSANTFVYYHFNPSFRSMFRSLFS---KTRKDG----------- : 353
8C  : GYFK---RYHNEIVVVNAVIFAFQTINCSANSLVYYHFNPSFRNMFRSVFYNGGKGRQNRPLVCSSS---- : 433
9C  : SQQP---RFKNVLSTLVDIMLMFSTLNANVNIFIYYNFNSRYRQYLQQYMHCQKIERNSQTETAFSRERKV : 366
10C : AFKN---KYRNIFPTIMMIIFQFSTLNASINIVVYYKFNTKYRQLFLRFYCCSKLQEKPEATR-------- : 357
11C : GQQP---RFMNLISTLMEIMFIFSTLNANVNIFIYYNFNSRYRQYLQQYLQCQKVK--------------- : 351
12C : SNRG---EYANSYTISFQFRMVILYAWFSSNIFIYSVYNTRFRKELMNMFCFRSE---------------- : 353
13C : DAVWGKHRYARMYYAGHFMRRVCEQINSAVNIFIYYSYNTKFRKFCKFC---------------------- : 334
14C : SLFYPG-RYRNLVSILYSIQILSQTVNCSLNIYIYYRFNSGYRSTFRQLFGLKK----------------- : 417
15C : KKMLLSTKDVQVLKSVALVATVFVIANFPKVVLSFARQFVPEMDTFRRYHNMHLTLQI------------- : 338
16C : SPRG---ELVNLYYVTVQVRLTLIFAWLSLNIVVYCAYNTRFRNELFKIFCPKSQ---------------- : 387
17C : NDFR---KYRDLFSVIGLFRICLMVSCSSLNVFVYLKFNSSFRQQAQRLW---GRCCHFGKQ--------- : 367
18C : NDFR---QLGEIYSLVGLVRISLLLLCSSLNIFVYITYNSSYRQQVAALWRKLGTTRSLGKREEK------ : 353
19C : RTGG---PYHNIYRLIDRLHNVMSTINASVNIFVYLKFNSRFRQVFLSFLLQ-RRERIIPRQNVDQ----- : 374
20C : SDRG---RYRNMRKLVDEIHSVMTTVNSSVNIFVYFTFNTRYREKLVSLRALFRRSRVEQKIDVYNQE--- : 385
21C : SDKG---RYRNIRTLVDEIHSVMTTVNSSVNIFIYFTFNTRYREKLVSLFSQFRRSRSR------------ : 376
22C : DTYK---RLNNLYFILHNANDLFENSSAVLNFLVYLSTSTRFRKTFWVLLHLDNKQEK------------- : 360
23C : NEVK---GYTKLFSLITTISWALAYLNAALNAVVYYNTNSRYKAIVDAGVRAVFCGQAGKE---------- : 345
24C : NEVK---GYTKLFSLVTMIAWALAYLNAALNAVVYYNTNSRYKAIVDAGVRAVFCGRGGEE---------- : 344
                                n   n   5   n
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