

MSA: Multiple Sequence Alignments

(mview format)

Cluster 1A

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CONSENSUS      IAVAALASVAQAAPQDNTWTYAGAKLGWSQFHDGGQGGNGKDNNGNPTDRNSLGAAGAFGGYQPNPYLAFELGYDNLGRMPKYGVDVNGGAFKAQGVQLSLKLSYPTDLDIYVYGRLLGGAVWRADSKGNVYAGGARLKDHDTGVSPLAALGVEYAITPNIAATRLLEYQWNNIGDANTVGYRPNNGSLSLGVSYRFGQDEAAPVVAAPAPAPV
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46915744.pir LPLALLISGAVNAATNFVAGARVGGTGYSDFD..GAFEDRDNWGGGAFGYGYNWFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
387936435.pir LMLAAASSVNVADNAGVGLGNGIDNADINRITENLLDGLSDDRDTGLKPSFGYQNNRPAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
90441027.pir LPLALVTSVVSATNFYVAGARLGAGHYSN..FQONYQDITGILNMLKDDVAAGVAGYNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
268161022.pir PLALLISGAVNAATNFVAGARLGAGHYSN..FQONYQDITGILNMLKDDVAAGVAGYNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
14331084.pir LVLGAGASMALASNVQGFVYVGGKAGTDFD..GANSLDCEBSEGFGVYQGLDVAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
90440061.pir LPLALFVSNSVHASTDNFWFVAGARAGASHITMD..DAVTSVTKLEDNTFAGVAGYQNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
328490735.pir PLVTVSSLSIAHASTDNFWFVAGARAGASHITMD..DAVTSVTKLEDNTFAGVAGYQNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
544135494.pir VAGLAAASVAQAAPQNTFYVAGVKAGQGSFDDGLRALA..REKNYGYRRNTFTYGVGGYQILNPNLIEFELGYDNLGRIAYKSGSNFSFAQAQISLAAKLSYPIIDNLDIYTRFGMMVWHQHSKYNYE.ISDHSTISPEMAAGVEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
404623132.pir LALAAAGTQAQA..DDWTVGAGAGWAYHNLND..DVGLDQDKDATALSPFGGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
11986360.pir PLALLVSGAATAAaNTFYVAGARLGAGHYSN..FAENITVDPNDQNDLGAAGLFGYQNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
893454005.pir LIALALTAGPLALDNLGAGVAGNRRSSTATIDARITSGLLGSLDNRSSGKIFPGYQNNRPAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
485941727.pir IATAAMATGATAAADDVYFGAGVAAHFNGLN..INGDDGTDEDAANAAPFVGYNTFENPGTEFGYAGR..GNTGSRVYENQATLSGLARPLGDDPSFAEGGAYWAHTDGLG..SDTKVSPLAGGLGVYKVNDAIDLQARYRYMMDVADLHADnyKSNQSVATLEAVYHPFRtsVAPVPAPEPVE
328492298.pir LPLALISTASAAATNFYVAGVRGAGHYSN..FQONYQDVTGILNMLKDDVAAGLFGYQNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE
320577092.pir .LGRMAKYSVNNAGFAQAQISLAAKLSYPIIDNLDIYTRFGMMVWHQHSKYNYE.ISDHSTISPEMAAGVEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
480569187.pir IATAALAAAGTTAA.QANDWTVGVTGWAMDRDLG..KFGMDADEDATINFLPGGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
369844096.pir TDASVWASSAFPAYQNGHYFLGARAGASHITMD..GSSANDDDTDFGYGAGGYQNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
569548869.pir IATAAMAAGATAAHAADDIYFGAGVGAHFNGLN..KIEGVNAGEEDAAAAAPFVGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
208009243.pir SLIGTICNANSTINDEDTIYIGKLIWTHFSNGC..ESQNDPCDKEAMGGVFLGYQINLWLAIEGSDYDLGNMVOVQNGNGGKKAQGLQFSMKASYSFENNNDIYGRAGAMVRAETBQA.....EHSNFTGVRPLAAGIEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
480839290.pir AAGTITLIPASSAAVAEPVVGKIKGWSLDDAC..QSGQPCDKDDTLTGFAVGVEYANKLWSLIEAGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
239950057.pir .ARXATSGNYYXXNRNVXGVYFGYQIIXIALVELGYVYFGRVGRGKXFRAPKHSAGHTHLSLKPSYEVNLNGDVGKVGGAALVRNDKRYYSQTAgqQKAHNLKTSILVLGAGVEYAILPELAFRVEYQWLSNVGhrATYNYSPDHSVTAGISYRFQGAAPVAAAPAEVVTKNF
41632425.pir AAIISATLLIPASSAAVAEPVVGKIKGWSLDDAC..QAGSCDDDDVSGAFVGYQANKLWSLIEAGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
569548871.pir IATAAAMGTSTAQAADDWYTGAGWAYGHDL..SFGLDKADKATALSPFGGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
404632559.pir IATAALAAGTGAAP.DNDWYGVGGVAAIAHDLG..DPGDKADKATALSPFGGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
404614684.pir IATAAMALGATAAHAADDIYFGAGVAAHFNGL..NKIDGCGYAGTDEDAANAAPFVGYNTFENPGTEFGYAGR..GNTGSRVYENQATLSGLARPLGDDPSFAEGGAYWAHTDGLG..SDTKVSPLAGGLGVYKVNDAIDLQARYRYMMDVADLHADnyKSNQSVATLEAVYHPFRtsVAPVPAPEPVE
U3BN2D.pir AAVISASILLMSASAMQVXGKAVGTWLLDDAC..ISGQPCDDDDSTLGAAGVYENKPLFAIEGSDYDLGNMVOVQNGNGGKKAQGLQFSMKASYSFENNNDIYGRAGAMVRAETBQA.....EHSNFTGVRPLAAGIEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
404632560.pir IATAAAMGTSTAQAADDWYTGAGWAYGHDL..DPGDKADKATALSPFGGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
651332619.pir IATAAAMGATAAHAADDIYFGAGVAAHFNGLN..KIEGVNAGEEDAAAAAPFVGYNTFENPGTEFGYAGR..GNTGSRVYENQATLSGLARPLGDDPSFAEGGAYWAHTDGLG..SDTKVSPLAGGLGVYKVNDAIDLQARYRYMMDVADLHADnyKSNQSVATLEAVYHPFRtsVAPVPAPEPVE
530714709.pir IATAAMAAGATAAHAADDIYFGAGVAAHFNGLN..KIEGVNAGEEDAAAAAPFVGYNTFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
480569188.pir IATAALAAMTATAAADDIYFGAGVAAHFNGL..NKIDGCGYAGTDEDAANAAPFVGYNTFENPGTEFGYAGR..GNTGSRVYENQATLSGLARPLGDDPSFAEGGAYWAHTDGLG..SDTKVSPLAGGLGVYKVNDAIDLQARYRYMMDVADLHADnyKSNQSVATLEAVYHPFRtsVAPVPAPEPVE
485941726.pir IATAALAAGSTAAaADDWYTGAGWAYGHDLDPDKG..NADVDKADATALSPFGGYNTFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
569548872.pir IATAALATSTAQAAP.AHDWYIGAGGWAYIAHND..DPSQDQDKDATALDPFVGYNTFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
444791046.pir QAQAQEEFPVNDWANSAGLWAGVGRSRANIDGLANGATVAFNTDRTDYTGKLVQNGKLYLALIEGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
262349585.pir AAIISATLLIPASSAAVAEPVVGKIKGWSLDDAC..QAGSCDDDDKATLGAAGVYENKPLFAIEGSDYDLGNMVOVQNGNGGKKAQGLQFSMKASYSFENNNDIYGRAGAMVRAETBQA.....EHSNFTGVRPLAAGIEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
315179386.pir AMVVASILLMSASAMQVXGKAVGTWLLDDAC..NNTGSCDDDDTAGALLGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
342795449.pir LAVVISASILLMSASAMQVXGKAVGTWLLDDAC..KTNFVCDDDDSASAGIFPGYENFENDYALIEAGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
530714708.pir IATAAAMGTSTAQAADDWYTGAGWAYGHDLN..DPGDKADKATALSPFGGYNFENNYAELGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
323310327.pir AAVISASILLMSASAMQVXGKAVGTWLLDDAC..TAATANCDDDDSTAGAFVGYENMDFDLSIEGSDYDLGNMVOVQNGNGGKKAQGLQFSMKASYSFENNNDIYGRAGAMVRAETBQA.....EHSNFTGVRPLAAGIEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
11435356.pir LITSMPLPASAASQELTFLWYGVGGVLYNNYEPSCDQTKWYCG..EDDPYVADDPVGGYLYNNYVYGLIEGSDYDLGNMVOVQNGNGGKKAQGLQFSMKASYSFENNNDIYGRAGAMVRAETBQA.....EHSNFTGVRPLAAGIEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
44800571.pir AAIISATLLIPASSAAMQVXGKAVGTWLLDDAC..LANQTCDDDDDEVGAPGLGYQANKLWSLIEAGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
U22K22.pir LAVITISTSLMPLPASAASQELTFLWYGVGGVLYNNYEPSCDQTKWYCG..TSSVCDDEDEVGAPGLGYQANKLWSLIEAGYDLGKLYKSGSTRNGAAfeAQLAQITLQFGFPVADNLDLYGRGGYGVTDSDQL.....DNDGGAAPVGAIGAEYAFNLNDWAARLEYQYSTPYGSRDDTGLRMDNGLLSLAAVYRFQGVAPAAVPAPEPVE
507220598.pir IATAAMAAGATAAHAADDIYFGAGVAAHFNGLN..KIESTNVAGEEDAAAAAPFVGYNTFENPGTEFGYAGR..GNTGSRVYENQATLSGLARPLGDDPSFAEGGAYWAHTDGLG..SDTKVSPLAGGLGVYKVNDAIDLQARYRYMMDVADLHADnyKSNQSVATLEAVYHPFRtsVAPVPAPEPVE
404632561.pir IATAAMAAGATAAHAADDIYFGAGVAAHFNGLN..NKIDGCGYAGTDEDAANAAPFVGYNTFENPGTEFGYAGR..GNTGSRVYENQATLSGLARPLGDDPSFAEGGAYWAHTDGLG..SDTKVSPLAGGLGVYKVNDAIDLQARYRYMMDVADLHADnyKSNQSVATLEAVYHPFRtsVAPVPAPEPVE
89050991.pir IPLAFSVSNSVHASTDNFWFVAGARAGASHITMD..DAVTSVTKLEDNTFAGVAGYQNTWPFAIEGSGYTWLGEVTSKYDeSdskIEBQQAIDLVGKFIYQATDKVDLYTKVGGAGQTRAKGLP..GQTATDRDLSLIATAGLAEYHFTDNLSARAERYQYHNMEKPTGTDTKIndANYGVSLVYWGAGAPVPAVPAPEPVE

The top layer shows the consensus sequence. Residues are coloured after their physico-chemical properties. (GPX black; positive blue; negative red; CM yellow; H dark purple; NQ light purple; all others green).

[illegible]

[illegible]

020AU33.pir
M7CYE3.pir
V1HXEL.pir
640533557.pir
V21H50.pir
514987866.pir
585356153.pir
640697039.pir
640473027.pir
498991530.pir
668715321.pir
668978780.pir
639209310.pir
635759348.pir
635729153.pir
639143704.pir
J3GNI2.pir
648211627.pir
IQ0UM4.pir
S3KMR0.pir
F61L51.pir
656056203.pir
668995843.pir
D4E9M0.pir
635730670.pir
516062260.pir
515554885.pir
635390596.pir
658U02.pir
635808248.pir
676254741.pir
639231046.pir
TQ0W98.pir
F2DCP9.pir
J23CJ9.pir
656483195.pir
516228497.pir
654439624.pir
655681749.pir
551320067.pir
Q6LKZ4.pir
V7RJ7F.pir
654512147.pir
659046544.pir
573000875.pir
640183594.pir
G9Z416.pir
V5F7L1.pir
512445055.pir
V21H50.pir
656054969.pir
603515169.pir
D023T4.pir
595581682.pir
V5FN80.pir
515589328.pir
518194350.pir
H7E932.pir
R8ATT2.pir
636345584.pir
U3BW23.pir
D1P6L2.pir
515587028.pir
515595246.pir
515593644.pir
M4U796.pir
658927258.pir
515595253.pir
Q9RGQ2.pir
U5A909.pir
668971670.pir
K8WC06.pir
D5CGY2.pir

0001.pir
162169853.pir
515591232.pir
A156Lr1.pir
B8M6F3.pir
D02BP0.pir
62565157.pir
G9YC49.pir
A6CY66.pir
S6UJ37.pir
S7UNR7.pir
515955248.pir
515955251.pir
C4SNF7.pir
51622831.pir
656054568.pir
51639873.pir
K8WNW7.pir
658455010.pir
B7VMH8.pir
B5N483.pir
G9Y8F9.pir
A7MM58.pir
Q6LGJ4.pir
U3B1F8.pir
C40763.pir
639223498.pir
51560344.pir
U3CNU2.pir
515599502.pir
639191517.pir
635729054.pir
665969372.pir
654468489.pir
V3FCR4.pir
V0PEX9.pir
R9PUK1.pir
B3GY1.pir
L4DR10.pir
653847214.pir
D4B3J2.pir
612160075.pir
F13FD2.pir
F9AW99.pir
567432933.pir
B3G3T3.pir
C9P7F8.pir
N0U5P6.pir
606389932.pir
V2X933.pir
639210140.pir
660552996.pir
V2D737.pir
674432810.pir
A6VRQ2.pir
T5JMD0.pir
674212155.pir
D4BBE1.pir
M4JQ81.pir
67426605.pir
640517675.pir
514987290.pir
B3G651.pir
668720668.pir
650007777.pir
F9T3P7.pir
670000613.pir
A8AGB9.pir
654672276.pir
585354392.pir
635657373.pir
603141504.pir
655006846.pir
K1IVK4.pir


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677870033.pir      ATLDYRHEYAdnKDRIAIEKLPNGIGFYVDASVKsVANAIELGVSYNYKVTDNFVLQPGGFIESGPDTSIYKPYLRQYNFDSGVYMACRYRYDYARKTANYSDDEKTNRFDTYIGYVFDLKLLEYNFTWMDs.....
F6CWF0.pir        TSINMRHEIVPehSDRIEVSHRFsNGIGFGVEAKWKsGNGQOSNISYRIKLSDDLFTTPQYKWEsSGSKLSHQFNFSFGYKVSSDWSVGFHRHRYNYQAKVDDNDSHYNRWTFsAGYKGVEDWSLSSSIdfSDVNFKGEYtLNNsWKPFLEFGLKpwRPRYRLGLKYSY
551321590.pir     TSIDFRHEWKAEdaSRVKMGHNyGgNIGIEMKFRSYDalTEtELDWCYTYKYNRNWELKPGMPIAITDRKTTFKPQLRIVYRADMGLTTALRYRYEIANYADsADGDTSMETGCKINQPHRTKLTLTGadYDIGLKAGYRMG.NWOPPELWDVkrQMKLRAGVKYYF
L2W9Y8.pir        ATLDVRCCYRSGseTRLVSEGWQNGWASMEsNTWNTLNDVQVEVNYAIKLDDQWTVRPGMLTHFSSNGTRYGPYVKLSWDATKDLNFGIRYRYDWMKAYRQQDLSGDMsRDNVHRWDGyVVIYHINSDFtaTENAFVLQYHITPDITPYIEYDYLDRQGVYNGRDNLSE
655000093.pir     ASVDVRGQYrdKFESRVLLNHEWSNGIGAGfEYVVDntwKENELELYYKYKVSdtLTLLDPSLVFQDTksGDIAKIGLRANWAFAPTWRDLARVRYEHKTRDTRDLAKQWDDNDTTRSELWLKRTFNKDIInLYEHNVGAAYKLNAFKPYAEIGYlpdWRFRLGLVYSF
655481417.pir     AYLDLRHEYRdrHTRTRLILGNHFDNGYGIEMLTNVFhGISNTEITNYTYAVNKNFTLNPGLTMNPLSSNTFMFPYKLKNY.FDNGLFVHGRIYRDFSNAPMQNDfGEDETVRRNRYDWTGYNTDDYqtGREHTFKLYVKWKPDRVPLQLVDAdtEWRYIGLNLAF
NanC.pir          ATLDVRGGYRSGseTRLVSEGWQNGWASMEsNTWNTLNDVQVEVNYAIKLDDQWTVRPGMLTHFSSNGTRYGPYVKLSWDATKDLNFGIRYRYDWMKAYRQQDLSGDMsRDNVHRWDGyVVIYHINSDFtaTENAFVLQYHMTPDITPYIEYDYLDRQGVYNGRDNLSE
L0M8V3.pir        DNRLAHTTASEKNQYKIGLGHIFDNGAGVLASAMyDLgsSFQEFEGWYPLPLNDRWTLTPGGLTDDSSGTKLAPYISLDYKISKTLsFSSRYRYNMTHKDFDYNGRMDYNDShQIDLILNYQATDKLkHWEPSIVARYRMKNKWLPYAEIWLAWLdnQVRVRLGVRYF
515678629.pir     GYVDLRAEYrdQYRSRFIVGHIFDNGYGLETLTNVRhkVINTEFTHYYTYAINDNFMLNPGVVMNPGQSGNTFLMPYLKKNY.FDNGLFVHGRIYRDFSEALVNDYDNEETAkRNRYDIWTGYNTDKYmNAREHTVAKVYKWKPTVRPYAEVDAtdDWRFVRGVNFSF
Q1Z3H2.pir        TKLDVRFGNhdIKDSRVKFMHTFDSGFYfSAEAAQIhkAAaQEFEAITYKFQINDDFWfSPGLVMVTAPNWTEYRPYLKLGTVFDNGLSVTSRYRYNWSNDANGKNKLDGSGTTRGASNQFDLWLSKSfGdyWEHTVMVNYKLNETWTPYMELVSVDETYVDENgKREND
515585635.pir     TKLDVRFGNhdIKDSRVKFMHTFDTGfYfSAEAAQIhkAAaQEFEAITYKFQINDDFWfSPGLVMVTAPNWTEYRPYLKLGTVFDNGLSVTSRYRYNWSNDANGKNYLDGSGTTRGASNQFDLWVSKSfGdyWEHTVMINNYKIDDTWTPYMELVSVDETYVDSNGNREND
A6AML5.pir        TKLDVRFGNhdIRDSRVKFMHTFDTGfYfSAEAAQIhkAAaQEFEAITYKFDLGEDWYAPGLVMVTAPNWTEYRPYLKLGTVFDNGVSLTCRYRYNWSNDANGKNYLDGSGTTRGASNQFDLWISKNfGdyWEHTIMVNYKLNETWTPYMELVSVDETYVDEQGNREND
603142470.pir     RYIRELKAYPYGCGLEQTSGLFPALYTNAAQLQSLGITGDSDEKRRAAVDIgsRILQMQRDNGGXXGFDTSIYKPYLRQYNFDSGVYMACRYRYDYARKTANYSDDEKTNRFDTYIGYVFDLKLLEYntNYEHNVALAWLKNKsFTPYVEGVNVarQRYRYRVLQYHF
655487076.pir     AQIDFRHEWRShdaSRVKLGtGfNaNIGIEMKFASfdeLTETELEDLGLTYKMG.KWQIKPGMPIALTDRKTTFKPQIRVVYKSDfGLTTALRYRHEfANYSdPTDGDNTVETGLKVNDPTRSKVTLTGfSyeYDAGIVVGYQfG.NWRPPFAELWTIdrQAKYRAGIKYKF
571190120.pir     .....MRVGYNsDMGAGIMLTNTYtKhGYNEIEGWYPLFktDKLTIQPGGLINDKsIGSGGAVYLDVNYKfTPWFNLTVRNRYNHNHYSSTDLNGDLNDNDTYEIGNYWNfAITDKFshWEITNTfKYRINEHWLPYELRWLDrgNQIRVGAkYFF
R9NJI7.pir        VSMdYRHEYRtthYDKLTLSQLPANyFFAAETKFKtVLNAVEMTLGKKIIG.NMTVSPHIIQPEFNsRTEWKFgVSPWYKINNRWSVGLLYRLELTDYAHDDLsgCANCSTNKHRTVNRVDGYLRFfRvnyYEQELQFNyALgkEWSPYISfGDInrQLRLRAGLAYTF
G5P738.pir        ATLDYRHEYAdnKDRIAIEKLPNGIGFYVDASVKsVANAIELGVSYNYKVTDFHVLQPGGFIESGPDTSIYKPYLRQYNFDSGIYMACRYRYDYARKTANYSDDEKTNRF.....DTYIGYVFDLKLLEYNFTWMDSDQIKFTTGWIAIK
H9YCG4.pir        .....MLRVGYNfDMGAGIMLTNTYtfKhGYNEIEGWYPLFktDKLTIQPGGLINDKsIGSGGAVYLDVNYKfVPWFNLTVRNRYNHNHYSSTDLsgELDNNDTYEIGTYWNfKITDKFshWEITNTfRYRINEHWLPYELRWLDrgNQIRIGTKY..
578244172.pir     TSVDLRFgHndVNSDRIVKMHQADNGFYfSVfEAQNhtEAAQIEIETRWRFDLGNGfAIApGMVTVFTASNTHYRPFIQGWKTFDNGLNLSARRYRYNTVNDASHDKRLDGSgyTRRESHQFDLWFAYNIgtYWEHTVAFNYKLDGgWTPPYVELVSLDKTYLTQDGNHEND
673534431.pir     TSVDLRFgHneANDSRIVKMHQADNGFYfSVfEAQNhtEAAQIEIETRWRFDLGdGYSVAPGMVTVFTSSNTHYRPFIQGWKsFDNGLNLSARRYRYNTVNDASHDRELdGSgyTRRESHQFDIWFAYNIgtYWEHTLAFNYKLDGgWTPPYVELVSLDKTYINDDGHEND
498113550.pir     LELNYEHKYedeHTDEIEISHDFESGIGIGSKLKSHPVlseKEFKINYNKDITDRFSIEPGMSFTIKDDEEKYKPSIKFKYRLfDKTKLSLRYRKEISDRDEKPTKRVDIEGKISQKIGKFDLGYLTyNTEHEVEVGYQTKHFSPYIGVKNEarQTEYIVGMNYKF
515599487.pir     .....FYfSGELKfKGADGDFMKDLKNNGWELDLGYRYKfDgnWTIQPGMPIESRESGMYTKPQLRATYALEsgLSLSARRYDYIKTYNSNGDSTENRHRITGNVNYSVADWKfGEayNIYDNKEENYELngDWYPYVEfGDVsrELRSRVGLTYSF
671631157.pir     ATVDYRHEYRltthYDKLGLSTTLPDNMFLGVETKFKtVLNVVEVTLFksYYWG.NWTLSPFIQPEFNsRTEWKFgVAPWYKfIDRWSLGGLYRLELTDYAHDDQCRtGGIDYCDTDRHRTANRFDLYlddYEQELQFDYALdRVVVPYVTFGDIGrQLRLRtGILYIY
654547603.pir     TSVDLRFgHndVNSDRIVKMHQADNGFYfSVfEAQNhtEAAQIEIETRWRFNLGNGfAVAPGMVTVFTPSNTHYRPFIQGWKAfDNGLNLSARRYRYNTINDASHDKELDGSgyTRRQSHQFDIWFAYNIgtYWEHTVAFNYQLDDGgWTPPYVELVSLDKTYINNDGNHEND
668994791.pir     LSLDYRHEYRvtthYDKLNMSAALPDNYNfSIEtKYKtVLNAVELTlKSfTFG.NFKIAPLIQPEFNsRTEWKFgVWPWYtINENWAIgGMRYRfELTDYANDPDcGYNGDKSCSTNKHRTVNRGDLylyDYEQEWQFDYSLgkEWKPYVTFGDIGrQfRLRMGVVYTF
594396893.pir     VTYDYRHGYRltthYDKLALGASLPDNWAFNVETKFKtVLNVVEMTLLKTYNWG.NWSWSPFIIQPEfSSRTEWKFgVAPWYKfINDSWSIGGLYRLELSDYAHDSQCCDAGHDfCSLDKHRTVNRfDAYEdNYEQELQFNyAMGaewGPyITfADIGrQLRLRLGVTYTF
515594352.pir     .....SIGNFYfSGELKfKfKADGDFMKDLQNNGWELDLGYRYKIDgnWTIQPGMPIEGRSSGMYTKPQLRATYALBsgLSLSARRYRYDIRTHSNGDSTQfRHRITGNVNYSVADWKfGfEAnnYELNLTAGRKfG.DWYPYVEfGDVnELRSRVGLTYSF
A6CXPl.pir        NYVDVRGAYkttyETRVrAGfDfQaAQGDKLFsNSGKSVAAFETELNYNWAINDNFTLTPGfVYWNsgDHMEYRPYLKATYAEgn.FYTAARYRYQAASSSTTPGVKtNDNTQYDLWVGYNLNDfALEYtKWHEHTfQVKYtGFESWAPYVDYQILdtENIRAGVTFNF

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[illegible]

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ESSEI EALGFYGGPGLKALAAAGITTVLYIGEGFASTGGELRRQTT..PQGRLEDAALDIDRLKLAGMGCAFPHTVFDINHGGLSSFPVH.....HLTVVSGIeGDTLDFELMIDGSPYDQSPFVKIGVQADTFaGSAVVFVAGFQNGHIGAVVpSGDPTVPLATTALCKEYSPTELSFGQGLFNGDPAQ:SRHRTYDHFVVDKALLIGEVAYAVH1:LPGTATLQGHMFQFESSELDVAGSELLADGEASGVaKQTVLIVAMIDQTVVREGRDEAGSAFLISAVPGRHLIDVYDAGIAYGLKGRPQDTAGLGHRRISDAARAFMDA.....LLPOTGPAPLRSEKTVFEATYGAVVKGLTVKGLQVQVMSGGSLADGAVVGLSAVTVY
VASSEIAGGHLpGIALKESLpRGVTFAPTYGKAMADVGGI..SRGHVYVRELTLQTFRLGRFGPTQNTVHTLLAKVGRVGEISDRVGD...YHIELKRVyLlSgVAILTSMVAKESFHITVGLAFGKALTVFATSpEFPST..CSAPVAILDLGDFVTFATWQKRVSLRTPDTLVQIGAYGVRLN.RDISHHAWAGEKSTGLAHIPRFAMRFFpGLPGLVYLGFAIDTTRYAHN...LGEVYAGSAIRPGGGRAROTTYLEADQGLVREKZASpAGTVLAGYIHDTTVVSVISSEFYVGSLLGIIPKRFDRPQVNGSYVRGSPRELGQLRKGAGNALOVHVG...PQTGAAVLEAYGVVVFPGILVLPKFPQVMSPGGTARIDPAAVVELKVTITL

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K7270, p1: KDSFGDSFVSIKKGALIKESG,KNVFKGVLYDFALSSVp41GKGFSSKAKLAFI1GNGGSPYELIAYL.....DQVLTIAQVYDG,PLKTIIGQVTPGLKELSSBNTSVVERKAPTDAF...GFERRVGLSATVHLGDFMLRGGIFSDHIDGLDQDGSFVGGVYVATIV,DOALHLSGVHIDGLDEIDSTVR,KPLVNSVGTPIHTDILGAEDEL.....VGLDAVIAIGFPHAAETNAKIHVE,LAQVTFPGSTEAQVFIQDAEYK...GGVFGDAQDGGTGMUTHLRFHLDVAGIV.....GGKDAVMAELIWTQVNVVELDYGHLAYGVKADRFVGVVGLAKTULGF
N48236, p1: PFPAAAEETIISWGPFTTHDQ...AFKVGKGLDAGVYSHPGSDdSPGTSKAKLKLGGKGLSGSPKYLELEQNE....VELVDTFTST,KMLVAIGKQVPLSLRGTDTTGVMEKAVTD,APGFERHLGISAGYHGCWIDIGALSBDGSGSDNSISFVGGVYVATIV,DTVLHFGASDHHTLRLAKPTVR,KPLRSTSTVLTLYGLAV.....DQVYVGLAAALIGFPHAAETNAKIHVE,LAQVTFPGSTEAQVFIQDAEYK...GGVFGDAQDGGTGMUTHLRFHLDVAGIV.....VGLDAVMAELIWTQVNVVELDYGHLAYGVKADRFVGVVGLAKTULGF
Q21934, p1: DQSEVYACALSHHMDVAFADAGKRWYGMHLDTALSTTDLAHdPQFIRKMLATVSGSLPQFQKAEVTA....MEVTPDVYLSHPLKATLHAGLTCGHEJTBGHWSTFBAVFD,APQSTRLGATVYKELPFDGLPQVAGISGLDPLVHGLAAATTPVQ,SGVHGLA-KVHPLAJHHHATLCTGDSAGLIRYAPVLTTSAPFTDQALSDQVLEKAVVGFQAFQKAAVAREHTAGHDSFHSFELDTFETGHWKHLKPLKATVLEHPLKAGAPLILKDTLHSHHLLKATPFGKGGVDTLLGVWFWKVFPLKHTVETGTFAPLSTYDALAAQVDF
Q214V5, p1: KHALMGQVGFQGGVTTISSDHYAKISGLAFHSDIGPMHSPRRGEGJTESKAKLAPISSEFY,KWIAITVDFGSDGDTSTSLYKALVYAGPHTVITAGVFPVHVKRDESRHFRIMKQATVDEVHIAAGDANSLGALVAREKTIAGVTD,TTQELVDS,SGATVWAGRPVNSKDIVHGLAATPFEVAKASDGRVWF.....SEAPVQVLTLLSATVSGVSHSAGIKGPHHRLTLKRYTHLOVTRSDQATVWTFDTYGAATVTFGGRKYTLKSGATAAGSPSTYHGLAETARYDVADLHILGASTALR...GGQVTHAGLAWYVHHRFPLGLFPHIVKSTAAAGRRGVSAGLQAV

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