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8384 SXII MTP-TQTHT HAGLDIDSMLMSLGDDMSTVGDRWSPPVAKWEAMAKIIDDTARRG---ILDDQTASIAWAVAHNMKTIATAALRLERYHGSTLEQLTARISDVVISE-
8398 SXII MTP-TQTHTIHAGLDIDSMLMSLGDDMSTVGDRWSIPPVAKWEVMAKIIDDTAIRRG---ILDDQITASIAWAVAHNMKTIATAALRLERYHGISTLEQLTARISDVVISE--GKKR 107
8313_SXI1 MTFLSEQTLRQNFLDILPALSYAASSDGNNDAKSMGVVHQWERMARVVCESSKRGQ---LDSETGSIASTVAQNVKAISSAMISLQQYYNQSTDLLIERMARVVIQPAPSRKHI110
15000_SXI1_MLRI[THTD!VQQLLE]|QPAIMGAMCSHGGDSGGGRDMTLEVKELNILIHDLTQMS|QADVLDRT|TATVAWAVGSNLKVLASD|IVALQRKFDDSIDTLTHNIAN|LSIAGDF|AK|KR|113
11757 SXI1 MTSSMSGNLGQRILGIQPSILQALRHSDVNGFKLEVEVDRWRQVTL---DIDRSASVDCLDRTTASMAWLVANNLKKISVAAMAIEQDLETSLENLTDSLAEVMVLQGPP
                                                                                                                             RRR 110
 569_SX11 MVLPKSEAETRQLLNAYRKVLYGMTQGVKIGRETVNYMEEWEKTV.--QDFVISSQGQTLDRTIADIASTVAHNVGIISAAALSFHQSADVAVEDLTKSVSEIVISRDQVRKR 110
11754 SXII MA-----ALTERLLAAQPALSLALTKASIDDRFLNAEIENWKSTA---DAIMTSLQTDHLDRRTASIAFNVASNLKAIASGALIIQQHSDESIEELSEAVRDILLQAPP-KKR 104
8384 SXI1
        <mark>PSPSMPLL|SSKRARQ</mark>SFVSTGSTPATRCSSPSSSLPDGLA|PSPYNASSSRNSSSK|KSQEPDHSL|RLWFLDN|SYPYPTVSMKEHLASKAG|TRAKVDSDLTNFRRRAG|WT 220
8398 SXI1
        PSPSMPULSSKRARQISFASTGSTPATRCSSPSSSLPDGLATPSPYNASSSRNSSSKIKSQEPDHSLIRLWFLDNISYSYPTVSMKEHLASKAGITRAKVDSDLTNFRRRAGWT 220
        LSPVTALRCSKRARQSSFSTPSIPP-----ALPDDFATUSPRNASSSKKSSKAHS-QEPDHSLIRHWFLHNISYPYPTVSMKETLASKAGITRAKVDSDLTNFRRRAGWT 214
8313 SXI1
        PSPST<u>PLRSSKRARR</u>LSFPTPSTPPTRC<mark>P</mark>SPTPSLPDNLVTPSPYNA<mark>PFSK</mark>KSSSKHKHQEPDHSLIRIWFLHNISYPYPTVSMKEHLASKAGITRAKVDSDLTNFRRRAG<mark>W</mark>T 226
15000 SXI1
11757 SXI1
       PFQSIPLRSSKRARGLAFSTPATPPFRCHSPTPSLPDDLATPSPYNSSSSGKSSPKNHSQEPDHSLIRLWFLHNISYPYPTVSMKETLASKAGITRAKVDSDLTNFRRRAGWT 223
 569 SXI1
        PAFSAPLCCSKRSRQSSFSTPSIP-----PALPDDLATSSPYN-TSSKKTSSISRSFEPDHSLIRIWFLHNISYPYPTVSMKETLASKAGITRAKVDSDLTNFRRRAGWT 214
        <mark>PLAATPLRCSKRARQ</mark>SSFSTPSNPHTRCSSPSPSLPDNLATPSPCNASSSRKSSSKNKPCESDHSLIRLWFLHNISYPYPTVSMKETLASKAGITRAKVDSDLTNFRRRAG<mark>N</mark>T 217
11754_SXI1
8384 SXM EIMNEWCGGDRNKMRKLIERVESGQEDEDEELVRRVQAVKEYLTRKEEERVGDWVREDVWLVSLSFTRSSIRLLPYLTVPSPPRRVTALVPSFDLDAATTSLTTSSA----KL 329
8398_SXI1 EIMNEWCGGDRNKMRKLIERVESGKEDEDEELVRRVQAVKEYLTRKEEERVGDWVREDVWPVSLSFTRSSIRLLPYLTVPSPRRRVTALVPSFDLDAATTSLTSSSASANAKL 333
8313 SXII EIMNEWCGGDRNKMRKLIERVESGQEDEDEELVRRVQAVKEYLTRKEEERVGDWVREDVWPVSLSIIRSSIRLLPYLTVPSPRRRVTALVPSFDLDAATTSLTSSSA----KL 323
15000 SXII EIMNEWCGGDRNKMRKLIERVESGKEDEDEELVRRVQAVKEYLTRKEEERVGDWVREDVWPVSLSIIRSSIRLLPYLTVPSPRRRVTALVPSFDLDAATTSLTSSSA----KL 335
11757 SXII EIMNEWCGGDRNKMRKLIERVESGQEDEDEELVRRVQGVKEYLTRKEEERVGDWVREDVWLVSISFTRSSIRLLPYLTVPSPPRRVTALVPSFDLDAATTSLTSSSASANAKL 336
 569 SXII EIMNEWCGGDRNKMRKLIERVESGQENEDEELVRRVQGVKEYLTRQEEERVGDWVREDIWPVSLSLTRSSIRLLPYLTVPSPRRRVIVLVPSFDLDAATTSLATSSA----KL 323
11754 SXI1 EIMNEWCGGDRNKMRKLIERVESGQEIEDEELVRRVQGVKEYLTRQEEERVGDWMREDIWPVSLSLTRSSIRLLPYLTVPSFRRVTALVPSFDLDAATTSLTSSSASANAKL 330
8384_SXI1 TKHRSTASLSSLSAMSSVSAVIRPASRSTSTSSATSFESSSSVSDASMVIPGANGNKKRLNPDAAVFVPQKRTAMIASTASTAVSASTSASMSAFNSAYASASASASA----A 438
8398 SXII TKHRSTTSLSSLSAMSSVSAVIRPASRSTSTSSTTSFESSSSVSDASMIIPGAKGNKKRLNPDAAVFIPQKRTAM---TASTAGSASTSASMSIFDSAYASASASASA----A 439
8313 SXI1 TKHRSTASLSSLSAMSSVSAVIRPASRSTSTSSATSFESSSSVSDASMVIPGANGNKKRLNPDAAVFVPQKRTAMIASTASTAVSASTSASMSASNSAYASASASASA----A 432
15000 SXII TKHRSTASLSSLSAMSSVSAVIRPASRSTSTSSATSFESSSSVSDASMVIPGANGNKKRLNPDAAVFVPQKRTAMIASTASTAVSASTSASMSAFNSAYASASASASA----A 444
11757 SXII TKHRSTASLSSLSAMSSVSAVVRPASRSTSTSSTTSSESSSSVSDASMVIPGAKGNRKRLNPDAAVFVPQERTAMTASTGSTAVSASTSASMSAFNSAYASASASASASASASA 449
 569 SXII TKHRSTASISSLSAMSSVSAVVRPASRSTSTSSTTSFESSSSVSDASMIIPGAKGNKKRLNPNAAVFVPQKRTTM---TSSSEAPTSTSTSMSAFDSAYASASA------ 425
11754_SXI1 TKHRSTAS|SSLSAMSSVSA|VRSASRSTSTSSTTSFDSSPS|SDASMV|PGAKGNKKRLNPDAAVFVPQKRTTM---TSSSEGPRSTSTSMSAFDSAYASASS------ 432
8384 SXII SSSISGSALAPSLTFTTISNGQPAIHSRFASGFSASNAAWQYHPTWTTSDGDSVNTFVHPGTPAPLPTPIQQSRSSPPRTHAQIFDNSPMWSTEKPLPMLSHMSSSSIVAPVS 551
8398 SXII SSSISGSVLAPSLTFTTISDDRPTASSQSASGSSASTAAWQYQPTWTTSDGDSVNTFVHPGTPAPLPTPMQQSRSSPPR-HAAV--ESTMWSTESPLPMLSHMSSSSVLAPVS 549
8313 SXI1 SSSISGSVLAPSLTFTTISNDQPATHSRCASGSSPSTTAWQYHPTWTTSDGDSVNTFVHPGTPAPLPTPMQQSRSSPPR-HAAV--ESTMWSTESPLPMLSHMSSSSVLAPVS 542
15000_SXI1 SSSISGSVLAPSLTFTTISNDQPATHSRCASGSSPSTTAWQYHPTWTTSDGDSVNTFVHPGTPAPLPTPMQQSRSSPPR-HAAV--ESTMWSTESPLPMLSHMSSSSVLAPVS 554
11757 SXII SSSTSGSVLAPSLTFTTISGDQPATHSRCASGSSPSTTAWQYHPTWTTLDGDSVNTFVHPGTPAPLPTPIQQSRSSPPRTQTQIFDNSAMWSTEKPLPMLSHMSSSFVVAPVS 562
 569 SXII SSSISGSVLAPSLTFTTISGDQPATHSRSASGSSASSAAWQHQPTWTTSDGDSVNTFVHPGTPAPLPTPMQQSRSSPPR-HAAV--ESTMWSTESPLPMLSHMSSSSVVAPIS 535
11754 SXII SSSTSGSVLAPSLTFTTISGDQPATHSRSASGSSASTAAWQYQPTWTDSNGDSVNTFVHPGTPAPLPTPVQQSRSSPPR-HAAV--ESTMWSTESPLPMLSHMSSSSIVAPVS 542
8384 SXI1 TSGQVQQHPSWTMPTQCEFEPRLQDGWASASASSSAGSSAVFNSRRTVSGGSGRSVSDVSRRL 614
8398 SXI1 SSGQVQQHPSWTMPTQCEFEPRLQDGWASASASSSAGSSAVFNGSRTVSGGSGRSVSDVSRRL 612
8313 SXI1 STGQVQQHPSWTMPTQCEFEPRLQGGWASASASSSAGSSAVFNGSRTVSGGSGRSVSDVSRRL 605
15000_SXI1 SSGQVQQHPSWTMPTQCEFEPRLQDGWASAS--SSAGSSAVFNDRRTVSGVSGRSVSDVSRRL 615
11757 SXI1 SSGQVQQHPSWTMPTQCEFEPRLQDGWASASASSSAGSTAVFNGRRTVSGGSGRSVSDVNR - -
 569 SXII SSGQVQHPSWTMPTQCEFEPRLQDGWASAS - SSAGSSAVFNDRRTVSGGSGRSVSDVSRRL 596
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11754 SXI1 STGQVQQHPSWTMPTQCEFEPRLQDGWASASASSSAGSSAVLNGRRTVSGGSGRSVSDVSRRL 605

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11754_SXI2 MS--<mark>TAFLDRLITVSKAIQKT</mark>CGPLDGYQM--LSTSGTKPTLEIPQPPFKIPDHLASRLS<mark>SQFVNDVLAHVETAMEDERIATLSFYDSTIAAFVS</mark>TAPHGGMSDH<mark>LTEVLLCD</mark> 109
11757 SXI2 MD - - I I ALERL I AVSDK I RQA CGSTAHTRP - - LSTSGRQPKLLVPTSLLE I PRRLREQVAPD I EA I QASVQSAAEHQ I RAALG I YASTAKAFL SVAPFGSQTDDRAEQQLCH 109
 8313SXI2 MSATVVQLRDLLSTTERIKHLCRPSSTNKLTLLRPQGIAPDLSEVSAESFISESQAAQLGPACTIAITKRVRSAIAQEQKSVLCSFQSVTSGMISLEEYGGVDDLYTVRQLCR 113
 569 SXI2 MS---ACLHKIIDISERILQTCESLQSRQP--LEITGKQPNFEIPALKFFLSEDLQAKLGPRITERILQYVTTAIQKDTYTAKTSYNMTVRQLGGLSAFGGTSSGDIEGGICQ 108
8384_SX12 MNTEI--LLELLGTARRVEYERGVLDHRKP--LAVTGRRPRPTTPQCRTIVPAIYAAHLGSELSDAINDHVKSVLDREKLSTISSFEALIGGMGSVADFGGMSDGDTEQQVCD 109
8398 SXI2 MDTEL--LLELLGTARRVEYECGVLDHRKP--LAVTGRRPRLTTPQCRTIVPAIYAAHLGSELSDAINDHVKSVLDREKLSTVSSFEALIGGMGSVADFGGMSDGDTEQQVCD 109
15000 SX12 MET-- ALQRL ASSDRVRHALGSRQTFQP--LRTSGMQPRLQTPEPVLPLTPEVLATFAPHRLAAIQVHIRSALDAKRQATLTEWRSLLEGVASMSTLGGVDDETTERQLCS 109
11754 SXI2 IFQTLFSRQLKEIQVNVTRAIERRLASSHSDPSKKLPSFSAHTLTVLNAAYARSKSLSQAETVIIAQAAGISPHQVRTWFQNKRNRGKDKKSSAPANRPVSSLPKRAQQQQQ - 221
11757_SXI2 LFEIHLASRMQDMQRAVIQVIETSLSFNQNASSKKLSPFSPRTLFVLDAAYARAKSLSQAETVIIAHAAGISPHQVRTWFQNKRNRGKDKKPPASTDRPVSSLPKRAQQQQ-- 220
 8313SXI2 LYEEFYKSQLARIRKTTSDVIERYLNSIEAAASHKLSSFSPHALVVLDAAYSHTNSLSQAETSIIAKAAGISAHQVRTWFQNKRNRGKDKKPSAPANRPVSSLPKRAQQQQQ - 225
 569 SXI2 VYEKRFANHIARMRDIILQAATGHLSEGESSACRKLSSFSSHTLLVLDAAYARSKSLSQAETIIIAQAAGISPQQVRTWFQNKRNRGKDKNPSTAANRPVSSLPKRAQQQQ- 219
8384_SXI2 LFDKHFAAQVSTIQQTVIQAIERFLLHTQGTSARKLSTFSPHTIIVLDAAYSRSKSLSQAETIIIAQAAGISPHQVRTWFQNKRNRGKDKKPSTAADRPVSSLPKRAQQQQQ - 221
8398 SXI2 LFDKHFAAQVSTIQQTVIQAIERFLLHTQGTSARKLSTFSPHTIIVLDAAYSRSKSLSQAETIIIAQAAGISPHQVRTWFQNKRNRGKNKKPSTAADRPVSSLPKRAQQQQQ - 221
15000_SXI2 LFEVLFQKQVRQVQRAAMQLLDGH-SVSQAASPRKLSSFS<mark>TRSLLVLDAAYSRSKSLSQAETVIIAQAAGISPHQVRTWFQNKRNRGK</mark>DKNPSTAPNRPVSSLPKRAQQQQQQ 221
11754_SXI2 -HPIKLESQANLLSPTPAPRRVR$LPKRAAQVSHNAPGTHVLPSYASSETSSHDYGILDVRERAVGMEDEEEGAGKMSRSASFASTSSLSTEAPNGGFVSPYEMHLSSTSGDR 333
11757_SXI2 -HQIKLESQANLLSPTPAPRPVRGLPKRAAQVSHNAPGTHTVPSYPSSETSSYVYGALDMRERAMGMEDEDEGAGRMSRSASFASTSSLSTEVPNGGFISPYEMHLSSSSGDR 332
 8313SX12 - HPIKLESQPNLLSPTPAPRRVRGLPKRAAQVSHNAPGTHVLSSYPSSETSSRDHGILDVRERAVGMEDED-GAGRMSRSASFASTSSVSTEAPNGGFISPYGMHLSSSSGDR 336
 569_SX12 -HQIKLESQVNLPSPAPARRVRGLPKRAAQVSHNAPGTHVLPSYASSETSSHDYGVLDMRERAMGMEDED-GAGRMSRSASFASTSSLSTEAPNGGFISPYEMHLSSRSGDR 330
8384 SXI2 -HPIKLESQANLLSPTPAPRRVR$LPKRAAQVSHNAPGTHVSPSYASSETSSRNYGVLDMQERAMGMEDED-GAGRMSRSASFASTSSLSSEAPNGGFISPYEMHLPSSSGDR 332
8398_SX12 -HPIKLESQANLLSPTPAPRRVRGLPKRAAQVSHNAPGTHVPPPYASSETSSRNYGVLDMQERAMGMEDED-GAGRMSRSASFASTSSLSTEAPNGGFISPYEMHLPSSSGDR 332
15000_SXI2 QHPIKLESQVNLLRS4PAPRRVR$LPKRAAQVSHNAPGTHVLSSYPSSETSSRDHGILDVRERAVGMEDED-GAGKMSRSASFASTSSVSNEAPNGGFISPYEMHLSSQSGDR 333
11754 SXI2 QASSSSSASVSGAAARHGEGLTQIAVEWGTGMLNIPIEALGGGQAPVFNFTPPSPLNVGFDPTFDPANYAPLPTDAFSLAQTQLSGESVYSPLEMPTGDSSHFPFAFPDNLDL 446
11757 SXI2 QASSSSSASVSGAAARHGEGLTQIAVEWGTGMLNIPIEALGGGQAPVFNFTPPSPLNVGFDPTFNPANYASLPTDSFSLAQSQSGETVAIPLEMGAENRSHFPFALPDNLDL 445
 8313SXI2 QISSSSSASVSGAAARHGEGLTQIAVEWGTGMLNIPIEALGGGQAPVFNFTPPSPLNVGFDPTFDPANYAPLPTDAFSLAQTQLSGESVYSPLEMPTGDSSHFPFAFPDNLDL 449
 569 SX12 QVSTSSSASGSGAGTRHGEGLTQIAVEWGTGMLNIPIEALGGGQAPVFNFTPPSPLNVGFDPTFNPADYAPLPTDSFSLAQSQSSGETVEIPLEMGAENRSHFPFSFPDNLDL 443
8384 SXI2 KVSSSSSASVSGAAARHGEGLTQIAVEWGTGMLNIPIEALGGGQAPVFNFTPPSPLNVGFDPTFDPANYAPLPTDAFSLAQTQLSGETVDSPLEMGASGSSHFPFAFPDNLDL 445
8398 SX/2 KVSSSSSASVSGAAARHGEGLTQIAVEWGTGMLNIPIEALGGGQALVFNFTPPSPLNVGFDPTFNPADYAPLPKDSFSLAQTQLSGETVDSPLEMGASGSSHFPFALPDNLDL 445
15000 SXI2 QVSTSSSASGTGTGARHGEGLTQIAVEWGTGMLNIPIEALGGGQAPVFNFTPPSPLNVGFDPSFNPADYGPLPTDLFSLAQSQSSGETVESPLEMPTGDSSHFPFSFPDKLDL 446
11754_SXI2 SEGLESIESILTEALSDPKSFEHFSTLAASPQISLDSLSPRSESSESLPSLPSGNVTPGQEYDGASYDFKSMSENRGAAEYGYGNGYGVGSMDEMEGDFFNALEGLLA-SPGD 558
11757 SXI2 SEGLESIESILTEALSDPKSFEHFSTLAASPQISLDSLSPRSESSESLPSLPSGNVTPGQEYDGASYDFKSMSENRGAAEYGYGNGYGVGSMDEMEGDFFNALEGLLA-SPGD 557
 8313SXI2 SEGLESIESILTEALSDPKSFEHFSTLAASPQISLDSLSPRSESSESLPSLPSGNVTPGQEYDGASYDFKSMSENRGAAEYGYGNGYGVGSMDEMEGDFFNALEGLLARSPAD 562
 569 SXI2 SEGLDSIESILTEALSDPKSFEHFSTLAASPQISLDSLSPRSESSESLPSLPSGNVTPGQEYDGASYDFKSMSENRGAAEYGYGNGYGVGSTDEMEGDFFNALEGLLA-SPGD 555
8384 SXI2 SEGLESIESILTEALSDPKSFEHFSTLAASPQISLDSLSPRSDSSESLPSLPSGNVTPGQESDGAPYDFKSMSENRGAAEYGYGNGYGVGSVSEMEGDFFNALEGLLA-SPSD 557
8398 SX/2 SEGLESIESILTEALSDPKSFEHFSTLAASPQISLDSLPPRSESSESLPSLPSGNVTPGQEYDGASYDFKTMSENRGAAEYGYRNGYEVGSMDEMEGDFFNALEGLLA-SPGS 557
15000 SX12 SEGLESIESILTEALSDPKSFEHFSTLAASPQISLDSLSPRSDSSESLPSLPSGNVTPGQEDDGASYEFKSMSENRGAAEYGYGNGYGVGSMDEMEGGFFNALEGVLA-SPSD 558
11754 SXI2 SFSPSGAVELDSPIALEKKWSSATPTRLTTTPQFIRSMSMMSDASFSVDQDTGIGR---MDGGESGGSAIIDASQGIDLPYIASIPLPASPTSSTLSLPREYTPSRSPSLAAA 668
11757 SXI2 SFSPSGAVELDSPIALEKKWSSATPTRLTTTPQFIRSMSMMSDASFSVDQDTGIGR---MDGGESGGSAIIDASQGIDLSYIASIPLPASPTSSTFSLPREYTPSRSPSLAAA 667
 8313SXI2 SFSPSGAVELDSPIALEKKWSSATPTSFTTTPQFIRSMSMMSDMSFHADPNTGMGAEGMVEEESSGSAAIIEASQGIDLSYIASIPLPASPTSSTFSLPREYTPSRSPSLAAA 675
 569 SXI2 SFSPSGAVELGSPIALEKKWSSATPTSFTTTPQFIRSMSMMSDMSFNADPNAGMGAEGTVEDESSGGSAIIDASQGIDLSYIASIPLPASPTSSTFSLPREYTPSRSPSLAAA 668
8384 SXI2 SFSPSGAVELGSPIALEKKWSSATPTSFTTTPQFIRSMSMMSDMSFNADPNTGMGAEGMVEEESSGGSAIIDASQGIDLSYIASIPLPASPTSSTFSLPREYTPSRSPSLAAA 670
8398 SXI2 SFSPSGAVGLGSPIELEKKWSSATPTSFTTTPQFIRSMSMMSDMSFNADPNAGMGAEGTVEDESSGGSAIIDASQGIDLSYIASIPLPASPTSSTFSLPRDYTPSRSPSLAAA 670
15000_SX12 SFSPSGAVELDSPIALEKKWSS<mark>vs</mark>ptsftttpqfirsmsmmsd<mark>asfsvdqdtgigr--mdg</mark>gessg<mark>saaiik</mark>asqgidlsyiasiplpasptsstfslpreytpsrspslaaa 669
11754 SXI2 VPRAQHTPERSISLASSDVKQRLTTSTSGNVSPFTASHYTPEKSMDVNQNQSPSQSHWEWIGALPFEMEMEMMEMDMLEGEAGSGAGSPASVGVGKEWEGGMSRIGGMIVQ 779
11757 SXI2 VPRAQHTPERSISLASSDVKQRLTTSTSGNVSPFTASHYTPEKSMDVNQNQSPSQSHWEWIGALPFEMEMEMMEMDMLEGEAGSGAGSPASVGVGKEWEGGMSRIGGMIVQ 778
 8313SXI2 VPRAQHTPERSISLASSDVKQRLTTSTSGNVSPFTASHYTPEKSMDVNQTQSPSQSHWEWIGALPFEMEMEMMEVDVSEGEGGS....PDSVGVGKEWEGGMSRIGGMIVQ 782
 569 SXI2 VPRAQHTPERSISLASSDVKQRLTTSTSGNVSPFTASHYTPEKSMDVNQTQSPSQSHWEWIGALPFEMEMEMMEMDMLEGEAGSGAGSPASVGVGKEWEGGMSRIGGMIVQ 779
8384 SXI2 VPRAQHTPERSISLASSDVKHRLTTSTSGNVSPFTASHYTPEKSMDVNQTQSSGQSQWQWFGALPFEMEMEMMEVDVLEGEGGSEGGSSDSVGMGKGWEGGMSGIGGMVVQ 781
8398 SXI2 VPRAQHTPERSISLASSDVKHRLTTSTSGSVSPFTASHYTPEKSMDVNQTQSPSQSHWEWIGALPFEMEMEMMEVDVSEGEGGSP----DSVGVGKEWEGGMSRIGGMIVQ 777
15000 SXI2 VPRAQHTPERSISLASSDVKQRLTTSTSGNVSPFTASHYTPEKSMDVNQTQSPSQSHWEWIGALPFEMEMEMMEVDVSEGEGGS----PDSVGVGKEWEGGMSRIGGMIVQ 776
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