

.....MSFFN-FRKCFKLGSPEKKKK-QYEVKVRD-NPPEFVNLII-ELDCA-GKVVKAKONK-ETINVAAKVIDTK-EEELDYMVVEIILASCD-HENIVKLIDIAFKYEENNALIIEFCAGGAVDVMVLELRPLTESQIVQVCRQTYEANVYHDNIIIIHRDIKAACNLITETDQGKIKADCFVSXAKNLKDQKRDSDI
.....MSFFN-FRKCFKLGSPEKKKK-QYEVKVRD-NPPEFVNLII-ELDCA-GKVVKAKONK-ETINVAAKVIDTK-EEELDYMVVEIILASCD-HENIVKLIDIAFKYEENNALIIEFCAGGAVDVMVLELRPLTESQIVQVCRQTYEANVYHDNIIIIHRDIKAACNLITETDQGKIKADCFVSXAKNLKDQKRDSDI
.....MSFFS-FRKCFKLGSPEKKKK-QYEVKVRD-NPPEFVNLII-ELDCA-GKVVKAKONK-ETINVAAKVIDTK-EEELDYMVVEIILASCD-HENIVKLIDIAFKYEENNALIIEFCAGGAVDVMVLELRPLTESQIVQVCRQTYEANVYHDNIIIIHRDIKAACNLITETDQGKIKADCFVSXAKNLKDQKRDSDI
.....MAFAN-FRRFLRLSTDEKRSREYEIVPRKDLPNVMEIV-ELDCA-GKVVKAKONK-ETGAAAKAATVIEETK-BEELDYIVIEIILATCD-HPVIVKLLGAYYDCKLIMIEFCAGGAVDVMVLELRPLTESQIVQVCRQTYEANVYHDNIIIIHRDIKAACNLITETDQGKIKADCFVSXAKNLKDQKRDSDI
.....MAFAN-FRRFLRLSTDEKRSREYEIVPRKDLPNVMEIV-ELDCA-GKVVKAKONK-ETGAAAKAATVIEETK-BEELDYIVIEIILATCD-HPVIVKLLGAYYDCKLIMIEFCAGGAVDVMVLELRPLTESQIVQVCRQTYEANVYHDNIIIIHRDIKAACNLITETDQGKIKADCFVSXAKNLKDQKRDSDI
.....MSFITNKKVHGGEEAKKKRILYNNIKMDIDPAFEMV-ELDCA-GKVVKAKONK-EOKRFAAKAMCQLEDEENLDHMVEIILSEIK-HENIVELVYAFSIDDKLMLIECYCGJALDSIMVELEKPLTEQIVYVCKGMEEGCTELERHKRNVIHLDKACNVNLTEGCVVKGKADCFVSXAKNLKDQKRDSDI
.....MSFITNKKVHGGEEAKKKRILYNNIKMDIDPAFEMV-ELDCA-GKVVKAKONK-EOKRFAAKAMCQLEDEENLDHMVEIILSEIK-HENIVELVYAFSIDDKLMLIECYCGJALDSIMVELEKPLTEQIVYVCKGMEEGCTELERHKRNVIHLDKACNVNLTEGCVVKGKADCFVSXAKNLKDQKRDSDI
.....LFSKMSFLNNKKWEEHLGSCEAKKKRIFNNIRMDIDPAFEMV-ELDCA-GKVVKAKONR-ETKGAIAAKMCILDELDHMVEIILSEIK-HENIVLYMAYSIDDKLMLIECYCGJALDSIMVELEKPLTEQIVYVCKGMEEGCTELERHKRNVIHLDKACNVNLTEGCVVKGKADCFVSXAKNLKDQKRDSDI
.....MAFALNKKVHGGEEAKKKRIFNNIRMDIDPAFEMV-ELDCA-GKVVKAKONR-ETKGAIAAKMCILDELDHMVEIILSEIK-HENIVLYMAYSIDDKLMLIECYCGJALDSIMVELEKPLTEQIVYVCKGMEEGCTELERHKRNVIHLDKACNVNLTEGCVVKGKADCFVSXAKNLKDQKRDSDI
.....SDEBEILEKEIHSVSG-.....DPKKKYI-RFKICGGAGSVYVHAMD-ATGQEVAVQANQLQQQKELLEINILVWRENK-INENIVYJLSYLVGDELAVVMEYLAGGSLTIVNET-CMDEGQIAAVRCERCLQAEEHLHSNQVIRDKISNILLGDGVKLDPCFCQQTPEPSKRSTAV
.....MEYMSIGSDEKEI-.....IDLLIHNVUSVLDIMENLYASEEPGVYDPSLM-TMYPDSNQESEESLRLSGQEVFWLSVR-YGIVBELLAFANAEVNIMKHFYCRQPBCGHDLMVMSISPQ-NGYQIDSDVLPVPLDLYRNGSC-FVRCAGFKVYLAQDKKPKRJACKLII
.....MEYMSIGSDEKEI-.....IDLLIHNVUSVLDIMENLYASEEPGVYDPSLM-TMCPDSNQNEKESLRLSGQEVFWLSVR-YGIVBELLAFANAEVNIMKHFYCRQPBCGHDLMVMSISPQ-NGYQIDSDVLPVPLDLYRNGSC-FVRCAGFKVYLAQDKKPKRJACKLII
.....MEYMSIGSDEKEI-.....IDLLIHNVUSVLDIMENLYASEEPGVYDPSLM-TMCPDSNQNDERSKRLLMVPSLW-YGIVBELLAFANAEVNIMKHFYCRQPBCGHDLMVMSISPQ-NGYQIDSDVLPVPLDLYRNGSC-FVRCAGFKVYLAQDKKPKRJACKLII
.....MAVMEVACPGTGSAGVQSKELAKAKEQTSQLEKKKQSCIPKLEAVEKSPFVKCMBILNDVTKG-TAKQGSEGGPPASIIIAQCE-NSQFSPSTFSERIFIAGSQOQSOSLSDVPPNVAHATEGKMARVCRCGKHKARKKRRPKRSKSAQAGVLAQPLRTPEQESCHTPVQDEDSLGNLY
.....MAVMEVACPGTGSAGVQSKELAKAKEQTSQLEKKKQSCIPKLEAVEKSPFVKCMBILNDVTKG-TAKQGSEGGPPASIIIAQCE-NSQFSPSTFSERIFIAGSQOQSOSLSDVPPNVAHATEGKMARVCRCGKHKARKKRRPKRSKSAQAGVLAQPLRTPEQESCHTPVQDEDSLGNLY
.....MAVMEVACPGTGSAGVQSKELAKAKEQTSQLEKKKQSCIPKLEAVEKSPFVKCMBILNDVTKG-TAKQGSEGGPPASIIIAQCE-NSQFSPSTFSERIFIAGSQOQSOSLSDVPPNVAHATEGKMARVCRCGKHKARKKRRPKRSKSAQAGVLAQPLRTPEQESCHTPVQDEDSLGNLY
.....MAVMEVACPGTGSAGVQSKELAKAKEQTSQLEKKKQSCIPKLEAVEKSPFVKCMBILNDVTKG-TAKQGSEGGPPASIIIAQCE-NSQFSPSTFSERIFIAGSQOQSOSLSDVPPNVAHATEGKMARVCRCGKHKARKKRRPKRSKSAQAGVLAQPLRTPEQESCHTPVQDEDSLGNLY
.....NIK.h-.....f13m_Paka-.....54970155.m-.....7106427.m-.....6678163.m-.....SLK.h-.....34873920.m-.....24762616.f-.....31211115.i-.....167550108.w-.....1f3m_Paka-.....6678798.m-.....16758708.m-.....COT.h-.....8393835.m-.....34873920.m-.....NIK.h-.....400

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....400

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....400

.....54970155.m-.....7106427.m-.....6678163.m-.....SLK.h-.....34873920.m-.....24762616.f-.....31211115.i-.....167550108.w-.....1f3m_Paka-.....6678798.m-.....16758708.m-.....COT.h-.....8393835.m-.....34873920.m-.....NIK.h-.....410

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....5490

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....5490

.....54970155.m-.....7106427.m-.....6678163.m-.....SLK.h-.....34873920.m-.....24762616.f-.....31211115.i-.....167550108.w-.....1f3m_Paka-.....6678798.m-.....16758708.m-.....COT.h-.....8393835.m-.....34873920.m-.....NIK.h-.....600

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....600

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....600

.....54970155.m-.....7106427.m-.....6678163.m-.....SLK.h-.....34873920.m-.....24762616.f-.....31211115.i-.....167550108.w-.....1f3m_Paka-.....6678798.m-.....16758708.m-.....COT.h-.....8393835.m-.....34873920.m-.....NIK.h-.....610

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....690

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....690

.....54970155.m-.....7106427.m-.....6678163.m-.....SLK.h-.....34873920.m-.....24762616.f-.....31211115.i-.....167550108.w-.....1f3m_Paka-.....6678798.m-.....16758708.m-.....COT.h-.....8393835.m-.....34873920.m-.....NIK.h-.....700

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....780

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....780

.....54970155.m-.....7106427.m-.....6678163.m-.....SLK.h-.....34873920.m-.....24762616.f-.....31211115.i-.....167550108.w-.....1f3m_Paka-.....6678798.m-.....16758708.m-.....COT.h-.....8393835.m-.....34873920.m-.....NIK.h-.....790

.....DDDEDETESALPIPANKRASSDLSIASSEEDK-.....DDEEEAENALTPANKRASSDLSIASSEEDK-.....DDEEEETSNLIPASKRASSDLSIASSEEDK-.....GEEDDAVADAVPPLVNTQDSDSANVTQDPS-.....GEEDDAVADAAESTLNHNTQNSSEEVSPPS-.....SEVISPPTGTAHDEVVTVSLENLNKTHVNNESS-.....VAGSDSDEISORQGDSWSAASDNPATSDGFKV-.....CPSRGALKAEKVPEEYLVLHALQGSVSSQAH-.....CLSREALAEKVPAEAEYLVLHALQGSVSSQAH-.....CLSRSRAHEKFVSEEEYLVLHALQGSVSSQAH-.....VRNTPQFTKPKEPGLQOLCEQKLGECLR-.....RSELKLISPLQCNLNVWKLHHHPQAGPLPHPTPFPFSRMPHFFPFY-.....DEPWRPYTLNAPFDKLAASVQGRPLPGPHLPSKPAY-.....DQSKQPLPGPHLSS-.....790

