

gi | 292618874 | ref | XP\_001919906.2 | ----MAPFLRIAFNEFLNGLGELPP--MTEPPFCAIKMKESLSTERGKTLVQRKPTMYPAWKSTFDAHIYEGRVIIQVLMRAAEALSEAVTVGVSVLAERCKKNGHAEFVWDLQPSGKVMMSVQFVVEG--FTDLSKAEHTAKDDGILIT 150  
gi | 47550719 | ref | NP\_999873.1 | ----MAPFLRIAFNADLGTFFSP--MAEAPFCAVKMKEALSTERGKTLVQRKPTMYPAWRSSFDAHIFEGRVIIQLLMRTAEELADVTIVGVSVLAERCKKNGHAEFVWDLQPSGKVMMSVQFVVEG--DTGSVCRHSVVAANEETPL 150  
gi | 6755082 | ref | NP\_035233.1 | ----MAPFLRISFNSEYELGSLQAEDEASQPPFCAVKMKEALSTERGKTLVQRKPTMYPWKKTFDAHIYEGRVIIQVLMRAAEDPVSSEVTVGVSVLAERCKKNGKAEFWLQPSAKVLMCVQYFLED---GDCQSMRSEEEAKFP 150  
gi | 18959250 | ref | NP\_579841.1 | ----MAPFLRISFNSEYELGSLQAEDEASQPPFCAVKMKEALTDRGKTLVQRKPTMYPWKKSTFDAHIYEGRVIIQVLMRAAEDPMSSEVTVGVSVLAERCKKNGKAEFWLQPSAKVLMCVQYFLED---GDCQSMRSEEEAKFP 150  
gi | 31377782 | ref | NP\_006245.2 | ----MAPFLRIAFNSEYELGSLQAEDEANQPPFCAVKMKEALSTERGKTLVQRKPTMYPWKKSTFDAHIYEGRVIIQVLMRAAEEPVSSEVTVGVSVLAERCKKNGKAEFWLQPSAKVLMCVQYFLED---VDCQSMRSEEDBAKFP 150  
gi | 56790275 | ref | NP\_001008716.1 | ----MAPFLRIAFNSEYELGSLQAEDEASQPPFCAVKMKEALSTERGKTLVQRKPTMYPWKKSTFDAHIYEGRVIIQVLMRAAEEPMSSEVTVGVSVLAERCKKNGKAEFWLQPSAKVLMCVQYFLED---IDCRQSMHGEDBAKLP 150  
gi | 118150830 | ref | NP\_001071323.1 | ----MAPFLRISFNSEYELGSLQAEDEASQPPFCAVKMKEALSTDRGKTLVQRKPTMYPWKKSTFDAHIYEGRVIIQVLMRAAEEPMSSEVTVGVSVLAERCKKNGKAEFWLQPSAKVLMCVQYFLED---VDCQSMRSEEDBAKFP 150  
gi | 57524924 | ref | NP\_001006133.1 | ----MAPFLRISFNSEYELGSLQAEDEASQPPFCAVKMKEALSTDRGKTLVQRKPTMYPWKKSTFDAHIYEGRVIIQVLMRAAEEPMSSEVTVGVSVLAERCKKNGKAEFWLQPSAKVLMCVQYFLED---VDCQSMRSEEDBAKFP 150  
gi | 17542632 | ref | NP\_499860.1 | MAQAENACRLKLLRADVPVLDLPAQCSAIDLQPAVNVKKEITVNGESRLVQKKKLYPEWEKCDWTAVABGRILQIVLMFN--TPVVEATMRLIEDIISKCKS--DAITHIWINKPNGRILAQTRHLKNAPDDDHPEVIMSRNSNGPGI 150  
gi | 221329868 | ref | NP\_001138191.1 | -MMFTRAQVRKQKSNSSQRPSSGGSSRHRTKQSSSTSSGAGSGLGASGASGARRDQYRRDRHYGKHSFELPRQHSKEAHRDRESAGGVDGRER-----SGIGNGGGVTVGGGVYVDR-----RTRPRST 150  
1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150



gi | 292618874 | ref | XP\_001919906.2 | NRRRGAIKQAKVHFIFKNHEFIATFFKOPFQVCKREFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCQTKVANLCCGINOKLLAEAL 300  
gi | 47550719 | ref | NP\_999873.1 | NRRRGAIKQAKIHFIFKNHEFIATFFROPFQVCKRDFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCQTKVANLCCGINOKLLAEAL 300  
gi | 6755082 | ref | NP\_035233.1 | NRR--GAIKQAKIHYIKNHEFIATFFGQPFQVCKREFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCREKVANLCCGINOKLLAEAL 300  
gi | 18959250 | ref | NP\_579841.1 | NRR--GAIKQAKIHYIKNHEFIATFFGQPFQVCKREFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCREKVANLCCGINOKLLAEAL 300  
gi | 31377782 | ref | NP\_006245.2 | NRR--GAIKQAKIHYIKNHEFIATFFGQPFQVCKRDFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCREKVANLCCGINOKLLAEAL 300  
gi | 56790275 | ref | NP\_001008716.1 | NRR--GAIKQAKIHYIKNHEFIATFFGQPFQVCKRDFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCREKVANLCCGINOKLLAEAL 300  
gi | 118150830 | ref | NP\_001071323.1 | NRR--GAIKQAKIHYIRHHEFIATFFGQPFQVCKREFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCQTKVANLCCGINOKLLAEAL 300  
gi | 57524924 | ref | NP\_001006133.1 | NRR--GAIKQAKIHYIKNHEFIATFFGQPFQVCKRDFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCQTKVANLCCGINOKLLAEAL 300  
gi | 17542632 | ref | NP\_499860.1 | QRRRGAIKHARVHEIRGHQFVAFFRPHFQVCKRDFVWGLNKGQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCREKVANLCCGINOKLLAEAL 300  
gi | 221329868 | ref | NP\_001138191.1 | TNRRGAIKHQKTHDINGHRFVAKFFRQPFQVCFQNLFLWGLGKQYKCRQCNAAIHKKCIDKIIIGRCGTAAANSRDITMFKERFKIDMPHRFKINNYMSPFCDHCGSLLWGLVQGLKCEDCGMNVHKKCREKVANLCCGINOKLLAEAL 300  
.....160.....170.....180.....190.....200.....210.....220.....230.....240.....250.....260.....270.....280.....290.....300



gi | 292618874 | ref | XP\_001919906.2 | NQVSL--KSSTKRDPDLSEIGIYQADKNVPAADT-----EGSQYKGFWDIIPAVPAETIVSTVYRSLNDFVQKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 47550719 | ref | NP\_999873.1 | TQVST--KSSTKRDPDNTQDVGVIYDFNKSPPGDDVT-----DGTPIYGHIVEGSSPPRPPRIHQTRITAEHFIFHKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYS 450  
gi | 6755082 | ref | NP\_035233.1 | NQVTD--RSSRKLDD--TESVGIYQGFQEKKEPEVSGSDIL-----DNNGTIYKGIWEGST-----RCTLNFITQKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 18959250 | ref | NP\_579841.1 | NQVTD--KASRKPE--TETVGIYQGFQEKKTAVSGNDIP-----DNNGTIYKGIWEGSN-----RCRLNFITQKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 31377782 | ref | NP\_006245.2 | NQVTD--RASRRSDSASEPVGIIYQGFQEKKTAVSAGDIP-----DNNGTIYKGIWEGSS-----KCNINNFIFHKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 56790275 | ref | NP\_001008716.1 | NQVTD--RSSRKS--ETESVGIYQGFQEKKEPEVSGSDIP-----DNNGTIYKGIWEGST-----KCNINNFIFHKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 118150830 | ref | NP\_001071323.1 | NQVSD--RSVKKET--EQDVGIIYQGFQEKKEPEVSGDIL-----GKETGTYKGIWEGST-----KCNINNFIFHKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 57524924 | ref | NP\_001006133.1 | TQVSD--KSTRSDSGS--VENVGIYQGFQEKKEPEVSGDIL-----DNNGTIYKGIWEGST-----KCNINNFIFHKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 17542632 | ref | NP\_499860.1 | HEIKRGTHTATASCPPIANLHNLNGETSKNNGSLPNKLNLEKSHOYVBEQKEDTEYMDNIWGGDGD-----PVKFFALPHFNLLKVLGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
gi | 221329868 | ref | NP\_001138191.1 | NVVKGAREARSDSPSPPLNPAAYKTEASEEIDETSIT-----YSQFQKSGRFTAPAVITP-----RFKNVSDVDFHFLAVLKGKGSFGKVMLELKGKQYFAIKALKKDVVLDDDDVECTMVEKRVLALAWENPFLTHLYC 450  
.....310.....320.....330.....340.....350.....360.....370.....380.....390.....400.....410.....420.....430.....440.....450



gi | 292618874 | ref | XP\_001919906.2 | TFQSKHEHLFFVMEYLNAGDLMFHIQDKGRFDLYRATFYAAEIIICGLQFLHSGKGIYR-----DLKLDNVMLDKDGHKIDAFGMCKENIFGEN--RATTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 47550719 | ref | NP\_999873.1 | TFQTKHEHLFFVMEYLNAGDLMFHIQDKGRFDLYRATFYAAEIVICGLQFLHSGKGIYR-----DLKLDNVMLDGDGHKIDAFGMCKENIFVGDN--RATTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 6755082 | ref | NP\_035233.1 | TFQTKDHLFFVMEFLNGDLMFHIQDKGRFELYRATFYAAEIIICGLQFLHSGKGIYR-----DLKLDNVMLDRDGHKIDAFGMCKENIFEGE--RATTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 18959250 | ref | NP\_579841.1 | TFQTKDHLFFVMEFLNGDLMFHIQDKGRFELYRATFYAAEIIICGLQFLHSGKGIYR-----DLKLDNVMLDRDGHKIDAFGMCKENIFEGE--RATTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 31377782 | ref | NP\_006245.2 | TFQTKDHLFFVMEFLNGDLMYHIQDKGRFELYRATFYAAEIMCGLQFLHSGKGIYR-----DLKLDNVMLDRDGHKIDAFGMCKENIFGES--RATTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 56790275 | ref | NP\_001008716.1 | TFQTKDHLFFVMEFLNGDLMYHIQDKGRFELYRATFYAAEIVICGLQFLHSGKGIYR-----DLKLDNVMLDGHKIDAFGMCKENIFGK--QASTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 118150830 | ref | NP\_001071323.1 | TFQTKDHLFFVMEFLNGDLMYHIQDKGRFELYRATFYAAEIVICGLQFLHSGKGIYR-----DLKLDNVMLDGHKIDAFGMCKENIFGK--QASTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 57524924 | ref | NP\_001006133.1 | TFQTKDHLFFVMEFLNGDLMYHIQDKGRFELYRATFYAAEIVICGLQFLHSGKGIYR-----DLKLDNVMLDGHKIDAFGMCKENIFGK--QASTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 17542632 | ref | NP\_499860.1 | SFQTNVYLLFFVMEYLNAGDLMHIIQGIKFDDEARTFYACIIVVALQFLHNNIYR-----DLKLDNVLLDCGHKIDAFGMCKENIFGK--QASTFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
gi | 221329868 | ref | NP\_001138191.1 | TFQTESHLFFVMEYLNAGDLMFHIQESGRFSEERARFYGAELIISGLFLHSGKGIYR-----DLKLDNVLLDYEYHIVRIDAFGMCKLIYLDK--TADFCGTDPDYIAPEILLGQKYSFSDWWSFGVLLYEMLIQSPFH 600  
.....460.....470.....480.....490.....500.....510.....520.....530.....540.....550.....560.....570.....580.....590.....600



