

gi | 89191868 | ref | NP\_000543.2 | MI PARFAGVLLALALILPGLTCAEGTRGRSSTARC SLF GSD FVN TFDGSMYSFAGYCSYLLAGGCCQKRFSIIGDFONGKRVLSVYLGEFFDIHLFVNGTVOGDRVSMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
gi | 114643010 | ref | XP\_508945.2 | MI PARFARVLLALALILPGLTCAEGTRGRSSTARC SLF GND FVN TFDGSMYSFAGYCSYLLAGGCCQKRFSIIGDFONGKRVLSVYLGEFFDIHLFVNGTVOGDRVSMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
gi | 50950127 | ref | NP\_001002932.1 | MSPTRLVRLVLLALALILPGLTCAEGTRGRSSTARC SLF GND FVN TFDGSMYSFAGYCSYLLAGGCCQKRFSIIGDFONGKRVLSVYLGEFFDIHLFVNGTVOGDRVSMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
gi | 115511022 | ref | NP\_035838.3 | MNPFVREICLLVLAITWPGTLCTEKPRDRPSTARC SLF GDD FINTFDGSMYSFAGYCSYLLAGGCCQKRFSIILGNFODGKRVLSVYLGEFFDIHLFANGTVMGQDOSIMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
gi | 109472605 | ref | XP\_342760.3 | MNPFVREICLLVLAITWPGTLCTEKPRDRPSTARC SLF GDD FINTFDGSMYSFAGYCSYLLAGGCCQKRFSIILGNFODGKRVLSVYLGEFFDIHLFANGTVMGQDOSIMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
gi | 194667464 | ref | XP\_584169.4 | MFPRLARLLLAVALTLPALCGEGALQSSMARC SLF GAD FINTFDGSMYSFAGYCSYLLAGGCCQKRFSIILGNFODGKRVLSVYLGEFFDIHLFANGTVMGQDOSIMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
gi | 118083233 | ref | XP\_417223.2 | ---MLLAVLTELLELVAVTQSSGSLQLQESSVSRCSLFGKDHKIFDGSFYSGDCSYLLAGGCCQKRFSIILGNFODGKRVLSVYLGEFFDIHLFANGTVMGQDOSIMPIYASKGLYLEEAGYKLSGEAYGFVAR-IDGSGNFQVL 150  
1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150



gi | 89191868 | ref | NP\_000543.2 | LSDRYFNKTCGLCGNFNIFAEDDFMQEGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
gi | 114643010 | ref | XP\_508945.2 | LSDRYFNKTCGLCGNFNIFAEDDFMQEGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
gi | 50950127 | ref | NP\_001002932.1 | LSDRYFNKTCGLCGNFNIFAEDDFMQEGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
gi | 115511022 | ref | NP\_035838.3 | MSDRHFNKTCGLCGDFNIFAEDDFMQEGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
gi | 109472605 | ref | XP\_342760.3 | IHTHLLMMIYTMGKQWYLLAKLELFS--AGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
gi | 194667464 | ref | XP\_584169.4 | IHTHLLMMIYTMGKQWYLLAKLELFS--AGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
gi | 118083233 | ref | XP\_417223.2 | LQEKYFNKTCGLCGNFNIFAEDDFMQEGTLTSDPYDFANSWALSSGEQWECERASPPSSCNISSGEMGKGLWEQCQLLKEISVFARFCHPLVDPEPFVALCEKILCECAGGLECACPALLEYARTCAOEGMVLVGTWDSACSVPVCPAGM 300  
.....160.....170.....180.....190.....200.....210.....220.....230.....240.....250.....260.....270.....280.....290.....300



gi | 89191868 | ref | NP\_000543.2 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
gi | 114643010 | ref | XP\_508945.2 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
gi | 50950127 | ref | NP\_001002932.1 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
gi | 115511022 | ref | NP\_035838.3 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
gi | 109472605 | ref | XP\_342760.3 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
gi | 194667464 | ref | XP\_584169.4 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
gi | 118083233 | ref | XP\_417223.2 | EYKQCVSPCARTQSLHINEMCQERCVDGSCPEGLLDEGLCVESTTECPVHSGKRYPPGATLSRDCNTICIR-----NSQWICSNBECPEGLVTCQSHFKSFDNRVYTFPSGI 450  
.....310.....320.....330.....340.....350.....360.....370.....380.....390.....400.....410.....420.....430.....440.....450



gi | 89191868 | ref | NP\_000543.2 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
gi | 114643010 | ref | XP\_508945.2 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
gi | 50950127 | ref | NP\_001002932.1 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
gi | 115511022 | ref | NP\_035838.3 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
gi | 109472605 | ref | XP\_342760.3 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
gi | 194667464 | ref | XP\_584169.4 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
gi | 118083233 | ref | XP\_417223.2 | COYLLARDCODHSFIVIVETVCCADDDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGDVQLPLKGLDLRIQHTVTAASVRLSYGEDLQMDWDGRGRLLVKSPLVYAGTKCGLCGNYNGNQDDFLTPSGLAEPRVEDFGNAWKLHGDC 600  
.....460.....470.....480.....490.....500.....510.....520.....530.....540.....550.....560.....570.....580.....590.....600



gi | 89191868 | ref | NP\_000543.2 | CDLQKQHS DPCALNPRMTRFSEECACVLTSPTEACHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
gi | 114643010 | ref | XP\_508945.2 | CDLQKQHS DPCALNPRMTRFSEECACVLTSPTEACHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
gi | 50950127 | ref | NP\_001002932.1 | ENLQKQHRDPCSLNPRQARFAEEACALLTSKFPETCHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
gi | 115511022 | ref | NP\_035838.3 | SDLRRQHS DPCSLNPRRFRFAEEACALLTSKFPETCHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
gi | 109472605 | ref | XP\_342760.3 | YDLHRRQHS DPCSLNPRRFRFAEEACALLTSKFPETCHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
gi | 194667464 | ref | XP\_584169.4 | EDLQKQHS DPCSLNPRRFRFAEEACALLTSKFPETCHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
gi | 118083233 | ref | XP\_417223.2 | CDLQKQHS DPCALNPRMTRFSEECACVLTSPTEACHRAVSPPLVLRNCRYDVCSCSDGRECLCGALASVAAAACAGRGVVRVAWREPGRCLELNC PKGQVYLQCGTPCNLT CRSLSPDEECNEACLEGCFPPGLVMDERGDVCPKACQPC 750  
.....610.....620.....630.....640.....650.....660.....670.....680.....690.....700.....710.....720.....730.....740.....750



gi | 89191868 | ref | NP\_000543.2 | YVDGEIFQPEDIFSDHHTMICYCEDGFMHCSTSGVPSGSLLPDAVLSSPLSHRSKRSLSCRPPMVKLVCPADNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
gi | 114643010 | ref | XP\_508945.2 | YVDGEIFQPEDIFSDHHTMICYCEDGFMHCSTSGVPSGSLLPDAVLSSPLSHRSKRSLSCRPPMVKLVCPADNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
gi | 50950127 | ref | NP\_001002932.1 | YVDGEIFQPEDIFSDHHTMICYCEDGFMHCSTSGVPSGSLLPDAVLSSPLSHRSKRSLSCRPPMVKLVCPADNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
gi | 115511022 | ref | NP\_035838.3 | YVDGELFQPADIFSDHHTMICYCEDGFMHCSTSGASGSLLPNIVLSSPLSHRSKRSLSCRPPMVKLVCPADNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
gi | 109472605 | ref | XP\_342760.3 | YVDGELFQPADIFSDHHTMICYCEDGFMHCSTSGASGSLLPNIVLSSPLSHRSKRSLSCRPPMVKLVCPADNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
gi | 194667464 | ref | XP\_584169.4 | YVDGEIFQPEDIFSDHHTMICYCEDGFMHCSTSGAPGSLLPDAVLSSPLSHRSKRSLSCRPPMVKLVCPADNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
gi | 118083233 | ref | XP\_417223.2 | YVDGEIFQPEDIFSDHHTMICYCEDGFMHCSTSKAPGALLPVDVFTDEKPSARIKRLSCRPPMVTLICPENNLRAGLECACTKTCQNYDLECMSTGCVSGGLCPFGMVRHENRCVALERCPFHQGEYAPGEEVKIGCNTVCVCRDRKWNCT 900  
.....760.....770.....780.....790.....800.....810.....820.....830.....840.....850.....860.....870.....880.....890.....900



gi | 89191868 | ref | NP\_000543.2 | DHVCDATCSITGMAYHLFFDGLKYLFPGECCOYVLVDYCGSNPGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSVVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNDLTS 1050  
gi | 114643010 | ref | XP\_508945.2 | DHVCDATCSITGMAYHLFFDGLKYLFPGECCOYVLVDYCGSNPGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSVVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNDLTS 1050  
gi | 50950127 | ref | NP\_001002932.1 | DHVCDATCSITGMAYHLFFDGLKYLFPGECCOYVLVDYCGSNPGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSVVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNDLTS 1050  
gi | 115511022 | ref | NP\_035838.3 | NHVCDATCSAIGMAYHLFFDGLKYLFPGECCOYVLVDYCGSNPGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSVVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNDLTS 1050  
gi | 109472605 | ref | XP\_342760.3 | THVCDATCSALGMAYHLFFDGLKYLFPGECCOYVLVDYCGSSGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSVVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNDLTS 1050  
gi | 194667464 | ref | XP\_584169.4 | DHVCDATCSALGLAHYFFDGLKYLFPGECCOYVLVDYCGSNPGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSVVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNDLTS 1050  
gi | 118083233 | ref | XP\_417223.2 | KNTCDGCTVIGTAHYLFFDGMKYLFPGECCOYVLVDYCKNNSGTFRLLVGNKGCSPVSKCKRVTILVGGGEIELEDFGDEVNVRKPMKDETHFEVVESSGRYIILLGKALSIVTWDLAMVSVILKADPNRVCGLCGNFDGIQNDLTS 1050  
.....910.....920.....930.....940.....950.....960.....970.....980.....990.....1000.....1010.....1020.....1030.....1040.....1050



gi | 89191868 | ref | NP\_000543.2 | SNLQVEEDPVDVFGNSWKVSSCADTRKVPFLDSSPATCHNNIMKQTMVDSSCRILTSDFVDCNKLVDPEPYLDVCIYDTCESIGDCACFCDTIAAYAHVCAOHGKVVWTRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
gi | 114643010 | ref | XP\_508945.2 | SNLQVEEDPVDVFGNSWKVSSCADTRKVPFLDSSPATCHNNIMKQTMVDSSCRILTSDFVDCNKLVDPEPYLDVCIYDTCESIGDCACFCDTIAAYAHVCAOHGKVVWTRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
gi | 50950127 | ref | NP\_001002932.1 | SSLQVEEDPVDLGNWKVNPQCADTRKVPFLDSSPAVCHNNIMKQTMVDSSCRILTSDFVDCNRLVDPEPYLDI CIYDTCESIGDCACFCDTIAAYAHVCAOHGKVVAVWRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
gi | 115511022 | ref | NP\_035838.3 | SSLQVEEDPVNFGNSWKVSSCADTRKLSLDVSPATCHNNIMKQTMVDSSCRILTSDFVDCNRLVDPEPYLDI CIYDTCESIGDCACFCDTIAAYAHVCAOHGQVAVWRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
gi | 109472605 | ref | XP\_342760.3 | SSLQVEEDPIDFGNSWKVSSCADTRKLSLDVSLAACHNNIMKQTMVDSSCRILTSDFVDCNRLVDPEPYLDI CIYDTCESIGDCACFCDTIAAYAHVCAOHGQVAVWRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
gi | 194667464 | ref | XP\_584169.4 | SSLQVEENPVDFGNSWKVSSCADTQKVRLDSPAICHNNIMKQTMVDSSCRILTSDFVRECNRNVNPEPYLDVCIYDTCESIGDCACFCDTIAAYAHVCAOHGQVAVWRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
gi | 118083233 | ref | XP\_417223.2 | SNEHLVDPVDVFGNSWKVNYCADVEKVIALVSP-ICNDNILKQVMVETSQILSGGLFBECKLKNPPEYIDICMYDTCESIGDCACFCDAIAAYAHVCAOHGKVVWTRTATLCPQSCBENLRNGYCEWRYNSCAPACQVTCQH 1200  
.....1060.....1070.....1080.....1090.....1100.....1110.....1120.....1130.....1140.....1150.....1160.....1170.....1180.....1190.....1200



gi | 89191868 | ref | NP\_000543.2 | PEPLACPVQCVGEGCHAHCPPGKILDELLOTCVDPEDCPVCEVAGRRFASGKKVILNPSDPEHCQICHCDGVNLTCEACQEPGGLVVPPTDAPVSTTILVVEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRI 1350  
gi | 114643010 | ref | XP\_508945.2 | PEPLACPVQCVGEGCHAHCPPGKILDELLOTCVDPEDCPVCEVAGRRFASGKKVILNPSDPEHCQICHCDGVNLTCEACQEPGGLVVPPTDAPVSTTILVVEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRI 1350  
gi | 50950127 | ref | NP\_001002932.1 | PEPLACPVQCVGEGCHAHCPPGKILDELLOTCVDPEDCPVCEVAGRRFASGKKVILNPSDPEHCQICHCDGVNLTCEACQEPGGLVVPPTDAPVSTTILVVEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRI 1350  
gi | 115511022 | ref | NP\_035838.3 | PEPLACPVQCVGEGCHAHCPPGRILDELLOTCVDPEDCPVCEVAGRRFASGKKVILNPSDPEHCQICHCDGVNLTCEACQEPGGLVVPPTDAPVSTTILVVEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRI 1350  
gi | 109472605 | ref | XP\_342760.3 | PEPLACPVQCVGEGCHAHCPPGKILDELLOTCVDAQDCPCEVAGRRFASGKKVILNPSDPEHCQICHCDGVNLTCEACQEPGGLVVPPTDAPVSTTILVVEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRI 1350  
gi | 194667464 | ref | XP\_584169.4 | PEPLACPVQCVGEGCHAHCPPGKILDELLOTCVDAQDCPCEVAGRRFASGKKVILNPSDPEHCQICHCDGVNLTCEACQEPGGLVVPPTDAPVSTTILVVEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRI 1350  
gi | 118083233 | ref | XP\_417223.2 | TQPLKPLQCVGEGCHVHCPAGKILDELLOTCVDPEDCPVCAVGGVKIPHGRRVILSRDDPHQCSCLCEGKILNLSVSCS-----PVEEVLITLTPAPEDERFAPSEYCSKMDLAFVLDGSSNKLSEDFEQLKTFIAGMMKILHI 1350  
.....1210.....1220.....1230.....1240.....1250.....1260.....1270.....1280.....1290.....1300.....1310.....1320.....1330.....1340.....1350



gi | 89191868 | ref | NP\_000543.2 | SQKWRVAVVEYHDGSHAYILGKDRKRPSELRRIASQVKYAGSQVASTSEVLKYTLFQIFSKIDRPEASRIILLMASQEPQRMRSRNFVRYVGLKKKKVVIVIPVIGIPHANLQIRLIEKQAPENKAFVLSVDELEQRDEIVSVLCD 1500  
gi | 114643010 | ref | XP\_508945.2 | SQKWRVAVVEYHDGSHAYILGKDRKRPSELRRIASQVKYAGSQVASTSEVLKYTLFQIFSKIDRPEASRIALLMASQEPQRMRSRNFVRYVGLKKKKVVIVIPVIGIPHANLQIRLIEKQAPENKAFVLSVDELEQRDEIVSVLCD 1500  
gi | 50950127 | ref | NP\_001002932.1 | SQKRIIRVAVVEYHDGSHAYIELDKRKRPSELRRITISQVKYAGSEVASTSEVLKYTLFQIFGKIDRPEASRIALLMASQEPQRMARNLVRYVGLKKKKVVIVIPVIGIPHASLQIRLIEKQAPENKAFVLSVDELEQRDEIINVLCD 1500  
gi | 115511022 | ref | NP\_035838.3 | SQKRIIRVAVVEYHDGSHAYLELARKRKRPSELRRITISQIKYTSQVASTSEVLKYTLFQIFGKIDRPEASRIILLTASQEPQRMARNLVRYVGLKKKKVVIVIPVIGIPHASLQIRLIEKQAPENKAFVLSVDELEQRDEIINVLCD 1500  
gi | 109472605 | ref | XP\_342760.3 | SQKRIIRVAVVEYHDGSHAYLELARKRKRPSELRRIASQVKYAGSQVASTSEVLKYTLFQIFGKIDRPEASRIALLTASQEPQRMARVYRVLGKKKKVVIVIPVIGIPHANLQIRLIEKQAPENKAFVLSVDELEQRDEIINVLCD 1500  
gi | 194667464 | ref | XP\_584169.4 | SQKRIIRVAVVEYHDGSHAYLALQDRKRPSELRRIASQVKYAGSEVASTSEVLKYTLFQIFGRIDRPEASRIALLTASQEPPLARNLVRYVGLKKKKVVIVIPVIGIPHASLQIRLIEKQAPENKAFVLSVDELEQRMDIVGYLCD 1500  
gi | 118083233 | ref | XP\_417223.2 | SQKRIIRVAVVEYHDGSHAYLALQDRKRPSQVMKIVQSIKYTGDAVASVAEVLKYIVQVFGKARTNAAQIAMLIAISKSPGKVR---TITPALNKKIITLIPVIGIPVYVVEQIRFIEKQLHS-RAPQMNVLLELMDNRDLIDVYCD 1500  
.....1360.....1370.....1380.....1390.....1400.....1410.....1420.....1430.....1440.....1450.....1460.....1470.....1480.....1490.....1500



gi | 89191868 | ref | NP\_000543.2 | LAPEAPP--LPPDMAVTVGPGLLGVS--TLGPKRNSMVLVDAFVLEGS... 1650  
gi | 114643010 | ref | XP\_508945.2 | LAPEAPP--LPPHVAQVTVGLGLLGLS--TLGPKRNSMVLVDAFVLEGS... 1650  
gi | 50950127 | ref | NP\_001002932.1 | LAPEAPP--LPPHVAQVTVGLGLLGLS--TLGPKRNSMVLVDAFVLEGS... 1650  
gi | 115511022 | ref | NP\_035838.3 | LAPEAPP--LPPHVAQVTVGLGLLGLS--TLGPKRNSMVLVDAFVLEGS... 1650  
gi | 109472605 | ref | XP\_342760.3 | LAPEAPP--LPPHVAQVTVGLGLLGLS--TLGPKRNSMVLVDAFVLEGS... 1650  
gi | 194667464 | ref | XP\_584169.4 | LAPEAPP--LPPHVAQVTVGLGLLGLS--TLGPKRNSMVLVDAFVLEGS... 1650  
gi | 118083233 | ref | XP\_417223.2 | LAPEAPP--LPPHVAQVTVGLGLLGLS--TLGPKRNSMVLVDAFVLEGS... 1650



gi | 89191868 | ref | NP\_000543.2 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800  
gi | 114643010 | ref | XP\_508945.2 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800  
gi | 50950127 | ref | NP\_001002932.1 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800  
gi | 115511022 | ref | NP\_035838.3 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800  
gi | 109472605 | ref | XP\_342760.3 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800  
gi | 194667464 | ref | XP\_584169.4 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800  
gi | 118083233 | ref | XP\_417223.2 | VTGNPASDEIKRLLPDIQVVPVIGVGNANVOELERIGWPNAPILLODFE... 1800



gi | 89191868 | ref | NP\_000543.2 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950  
gi | 114643010 | ref | XP\_508945.2 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950  
gi | 50950127 | ref | NP\_001002932.1 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950  
gi | 115511022 | ref | NP\_035838.3 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950  
gi | 109472605 | ref | XP\_342760.3 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950  
gi | 194667464 | ref | XP\_584169.4 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950  
gi | 118083233 | ref | XP\_417223.2 | SLVDVMQR--EGGSPQIGDALGFAVRYLTS... 1950



gi | 89191868 | ref | NP\_000543.2 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100  
gi | 114643010 | ref | XP\_508945.2 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100  
gi | 50950127 | ref | NP\_001002932.1 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100  
gi | 115511022 | ref | NP\_035838.3 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100  
gi | 109472605 | ref | XP\_342760.3 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100  
gi | 194667464 | ref | XP\_584169.4 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100  
gi | 118083233 | ref | XP\_417223.2 | QPDGQTLKSHRVNCDRGLRPSCPNSQSPVKVEETCGCRWTCPCVCTG... 2100



gi | 89191868 | ref | NP\_000543.2 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250  
gi | 114643010 | ref | XP\_508945.2 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250  
gi | 50950127 | ref | NP\_001002932.1 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250  
gi | 115511022 | ref | NP\_035838.3 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250  
gi | 109472605 | ref | XP\_342760.3 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250  
gi | 194667464 | ref | XP\_584169.4 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250  
gi | 118083233 | ref | XP\_417223.2 | LGHIFFTPONNEFQQLSPKTFASKTYGLCGICDENGANDFMLRDGVT... 2250



