**Supplementary Table 1. Protein sequences used in this study.**

>GhGATL1\_At

MRRNHLSYPNSLFFTFNINRLFRYRVNIVCIYIDSVLMMKVICTMAHLLHRLVIFTILITMAATVTPITHQHSKEASKFYNSPACLSISEPYILCSHQALHLAMTIDKAYIRGSMAAILSVLQHSSCPHNIAFHFLISATANASLLRATISSSFPYLYFRLYPFDHSSVPLISTSIRSALDCPLNYARIYLASLLPSCIHRVLYLDSDLILVDDVAELAAIQLGDNSVLAATEYCSANFVSYFTPTFWSNPCLSLTFANRKACYFNTGVMVMDLDRWREGDYTRKIEEWMEIQKRMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFDGLCRDLHPGPVSVLHWSGKGKPWARLDAKTPCLLDALWASYDLMDTSFAFDS

>GhGATL12\_At

MLWVMQFSGFFSAAMLMIVLSPSFQSFPPAEAIRSSHLHAYLRLSSYQVSSSPYSPLDRFSFRKASEFGNADKCRSTDHKITGVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSLCPENVFFHFLVSDTDLETLVRSTFPQLKFKAYYFDPAIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDIAKLWSTNLGSRTIGAPEYCHANFTKYFTSGFWSAERFSGTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMEIQKTDRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRGLHPGPVSLLHWSGSGKPWDRLDSRRPCPLDALWAPYDLYRHSH

>GhGATL10\_Dt

MALWRTLPIPIASPHGLILSFLILLHSAVTTTVAIRVRTIIHDPSPVKLPVFREAPAFRNGDSCGSNKDDRIHIAMTLDENYLRGTMAAVLSMLQHSTCPENLSFHFLCAHSDVELVSSIESTFPYLNFKIYRFDSNRVRGKISKSIRQALDQPLNYARIYLADILPADVKRVLYLDSDLVVVDDIGKLWDVDMEDKVLAAPEYCHANFTVYFNDAFWSDPVLSNTFQGRNPCYFNTGVMVVDVDKWRKGGYTKKVEQWMAFHKKKRIYHLGSLPPFLLVLAGNIKPVDHRWNQHGLGGDNFEGKCRNLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYRSSRHFLEE

>GhGATL4\_Dt

MSKPPRFDLLIVLLFTVIALASNSVTATPITQQFKEAPQFYNSPDCAVLVDEDESDGEASILCSDQAVHVAMTLDTAYIRGSMAAILSVLQHSSCPQNIAFHFVASATANATFLLATISSSFPYLNFRVYPFDDSSVSRLISTSIRSALDCPLNYARSYLANLLPPCVRRVVYLDSDLVLVDDIAKLAATPLGDDPVLAAPEHCNANFTTYFTPTFWSNPSLSLTFANRKPCYFNTGVMVIDLDRWREGDYTTKIEEWMELQKRIRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLETPFALDS

>GhGATL6\_Dt

MPKPQLLHFLHVLSFNVFAIAAVIATVTAATVTLQLKEAPQFYNSPDCPSITNIEDDPNGESSIFCSDQAVHVAVTLDSAYIRGSMAVTLSVLQHSSCPQNIVFHFVTSAAANVSFLHATISASFPYLNFQIYPFDDASVSRLISTSVRSALDCPLNYARSYLANLLPLCVTRVVYLDSDLILVDDIAKLAATPLGDNSVLAAPQYCNANFTSYFTTTFWSNPSLYLTFANRKPCYFNTGVMVMDLDRWRNGDYTTKIEEWMEIQKQMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRNLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFVLDS

>GhGATL8\_Dt

MPKLALIPPHDHHRHHRQLLLIFLLISATTAAPASATTNYQVFKEAPQFYNSPTCPSIHTNGMCCDQAVHVAMTLDTAYLRGLMAAILSILQHSSCPQNILFHFIASATANHQHFRYTISRAFPALVFQIYPYDSKALSGLISTSIRSALDCPLNYARNYLPNLLPRCLRRVVYLDSDLVLVDDMAKLAATPLGDSSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFSGRKACYFNTGVMVIDLQRWRAGDYTTEIVEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRDLHPGPTSLLHWSGKGKPWARLDANRPCPLDAFWAPYDLLQTSSALES

>GhGATL10\_At

MALWRTLPIPIASPHGLILSFLILLHSAVTTTVAIRVRTIIHDPSPVKLPVFREAPAFRNGDSCGSNKDDRIHIAMTLDENYLRGTMAAVLSMLQHSTCPENLSFHFLCAHSDVELVSSIESTFPYLNFKIYRFDSNRVRGKISKSIRQALDQPLNYARIYLADILPADVKRVLYLDSDLVVVDDIGKLWDVDMEDKVLAAPEYCHANFTVYFNDAFWSDPVLSNTFQGRNPCYFNTGVMVVDVDKWRKGGYTKKVEQWMAFQKKKRIYHLGSLPPFLLVLAGNIKPVDHRWNQHGLGGDNFEGKCRNLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYRSSRHFLEE

>GhGATL8\_At

MAAILSILPHSSCPQNILFHFIASDTANHHHFRYTISRAFTALVFQIYPYDSKAVSGLISSSIRSALDCPLNYARNYLPNLLPHCLRRVVYLDSDLVLVDDMAKLTATPLGDSSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFSGRNACYFNTGVMVIDLQRWRAGDYTTKIVEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRDLHPGPTSLLHWSGKGKPWARIDANRPCPLDAFWAPYDLLQTSSSLES

>GhGATL6\_At

MPKSQLLHFLHVLAFNVFAIAAVIATVTAATVTLQLKEAPQFYNSPDCPSITNIEDDPNGESSIFCSDQAVHVAVTLDSAYIRGSMAVTLSVLQHSSCPQNIVFHFVTSAAANVSFLHATISSSFPYLNFQIYPFDDASVSRLISTSIRSALDCPLNYARSYLANLLPLCVTRVVYLDSDLILVDDIGKLAATPLGDNSVLAAPQYCNANFTSYFTTTFWSNPSLSLTFANRKPCYFNTGVMVMDLDRWRNGDYTTKIEEWMEIQKQMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRNLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFVLDS

>GhGATL17\_At

MRFILYAAALLLLHVFLTVSFCLAIRTTVGGDGLGFRFPEAPYYRNGVECPVSSGDRNLVQVAMTLDFEYLRGSIAAIHSVVRHASCPENIFFHFIAAEFDPASPRVLSKLVRSTFPSLNFRIYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDLQVDRVIYLDSDLVLVDDILKLWNTTLTNSRVIGAPEYCHANFTKYFTAGFWSDPVISRVFRSRKPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKKKIYELGSLPPYLLVFAGNVEGIDHRWNQHGLGGDNIRGSCRSLHPGPVSLLHWSGKGKPWVRLDGGNPCPLDHIWESYDLYKGNLIKHQSFPSAFANFFEYPSYLF

>GhGATL1\_Dt

MVGDPWPLFFPYFNTPLVPTTLPSISSSPPPQTPHFYAPPYPPPSLTSTSDYPFDHSSVAPLISTSIRSALDCPLNYARIYLASLLPSCIHRVLYLDSDLILVDDIAELAAIQLGDNSVLAATEYCSANFVSYFTPTFWSNPCLSLTFANRKACYFNTGVMVMDLDRWREGDYTRKIEEWMEIQKRMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFDGLCRDLHPGPVSVLHWSGKGKPWARLDAKTPCRLDALWASYDLLDTSFAFDS

>GhGATL17\_Dt

MRFILYAAALLLLHFLLTASFCLAIRTTVGGDGLGFRFPEAPYYRNGVECPVSSGDRNLVQVAMTLDFEYLRGSIAAVHSVVRHASCPENIFFHFIAAEFDPASPRVLSKLVRSTFPSLNFRIYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDLQVGRVIYLDSDLVLVDDILKLWNTTLTNSRVIGAPEYCHANFTKYFTAGFWSDPVISRVFRSRKPCYFNTGVMLMDLVRWREGNYRKRIENWMEIQRKKKIYELGSLPPYLLVFAGNVEGIDHRWNQHGLGGDNIRGSCRSLHPGPVSLLHWSGKGKPWVRLDGGSPCPLDHIWESYDLYKGNLIKHQSFPSAFANFFEYPSYLF

>GhGATL11\_Dt

MVALPFLGRLSFLLLIATTTTTAFAIGIHHGSIIRKPSSGVSNFREAPKFRNGDVCGTNASERIHIAMTLDVNYLRGTMAAVLSVLMHSTCPENTEFHFLWGKYEPEVLVSINSTFPYLNFRLYHFDSDRVRGKISRSIRQALDQPLNYARIYLADMLPPDVKRVLYLDSDLVVVDDIVKLWEVDLEGKVLAAPEYCHANFTKYFTDLFWSDKELSSTFNGRKPCYFNTGVMVVDVDKWRQGGYTPKVEEWMALQKQKRIYTLGSLPPFLLVLAGNIKAVHHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCAVDHLWAPYDLYGSPDHSLEE

>GhGATL7\_Dt

MPEPHGHLHRHHLLLLLFLLITATNSAPASATTTNYQRFKEAPQFYNSPACPSLDTNEMCSHQAVHVAMTLDAAYLRGSMAAILSVLQHSSCPQNIRFHFIPSSTANHQHLRLTISRSFPSLKFQIYPYDSSKVSGLISTSIRSALDCPLNYARNYLANLLPPCLSRVVYLDSDLVLVDDIAKLAATPLGDRSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKACYFNTGVMVIDLQRWRQGDYTTKIIEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRNLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES

>GhGATL5\_Dt

MPKSPSLFDFHLLLLFTIFSLAAADAIAAARPITQQFKEAPQFYNSEICPKIVGEDDESDNGTSIFLCSDQSVHVAMTLDSAYIRGSMAAVLSILQHSSCPQNIVFHFVASATANASFLHATISSSFPYLSFQVYSFDDSSVSRLISASIRSALDCPLNYARSYLADLLPSCVRRIVYLDSDLVLVDDIAKLAATQLGDNSVLAAPEHCNANFTSYFTLTFWSSPTLSLTFANRKPCYFNTGVMVIDLDRWRRGDYTKKIEEWMEIQKRTRIYELGSLPPFLLVFAGNIVAVDHRWNQHGLGGDNFKGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALDS

>GhGATL7\_At

MPKPHDHLHRHHLLLLLFLLITATNSAPASATTTNYQRFKEAPQFYNSPACPSLDTNEMCSHQAVHVAMTLDAAYLRGSMAAILSALQHSSCPQNIRFHFIPSATANHHHLRLTISRSFPSLKFQIYPYDSSKVSGLISTSIRSALDCPLNYARNYLANLLPPCLSRVVYLDSDLVLVDDIAKLAATPLGDRSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKACYFNTGVMVIDLQRWRQGDYTTKIIEWMELQKRIRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRNLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES

>GhGATL14\_At

MTDLKRILLFFRSSLFILLADWLDFKSKKKKRRGICSSKILWIRRFSGFFFAAMLMIILSPSLHSFPPAEAIKSSHLDSYLRLPSYQASHSSKDRFSFRKASGFRNADECGFTDRKITGVCDPSLVHVAITLDVVYLRGSIAAVHSILQHSLCPENIFFHFIVSDADLETLVRSTIPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDITKLWITNLGSRTIGAPEYCHANFTNYFTGGFWSDQRFSRTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMQIQKRYRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVKGSCRELHPGPVSLLHWSGSGKPWLRLDSNRPCPLDALWAPYDLYGHPH

>GhGATL4\_At

MSKPPRFDLLLVLLFTVIALASNSVTVATPITQQFKEAPQFYNSPDCAVLVDEDESDGEASILCSDQAVHVAMTLDTAYIRGSMAAILSVLQHSSCPQNIAFHFIASATANASFLLATISSSFPYLNFRVYPFDDSSVSRLISTSIRSALDCPLNYARSYLANLLPPCVRRVVYLDSDLVLVDDIAKLAATPLGDDSVLAAPEHCNANFTTYFTPTFWSNPSLSLTFANRKPCYFNTGVMVIDLDRWREGDYTTKIEEWMELQKRIRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFALDS

>GhGATL14\_Dt

MVDLKRILLFFRSSLFILLADWLDFKSKKKKRRGICSSKILWIRRFSGFFFAAMLMIILSPSLHSFPPAEAIKSSHLDNYLRLPSYQASHSSKYRFSFRKASGFRNADECGFTDHRITGVCNPSLVHVAITLDVVYLRGSMAAVHSILQHSLCPENILFHFIVSDADLETLVQSTIPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDITKLWITNLGSRTIGAPEYCHANFTNYFTGGFWSDQRFSRTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMQIQKRYRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVKGSCRELHPGPVSLLHWSGSGKPWLRLDSNRPCPLDALWAPYDLYGHPH

>GhGATL5\_At

MPKSPSLFDFHLLLLFTIFSLAAADAIAAARPITQQFKEAPQFYNSEICPKIVGEDDESDNGTSIFLCSDQSVHVAMTLDSAYIRGSMAAVLSILQHSSCPQNIVFHFVASATANASFLRATISSSFPYLNFQIYSFDDSSVSRLISTSIRSALDCPLNYARSYLADLLPSCVRRIVYLDSDLVLVDDIAKLAATQLGDNSVLAAPEHCNANFTSYFTLTFWSSATLSLTFANRKPCYFNTGVMVIDLDRWRRGDYTKKIEEWMEIQKRTRIYELGSLPPFLLVFAGNIVAVDHRWNQHGLGGDNFKGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALDS

>GhGATL13\_Dt

MLWIMQFPGFFSAAMMMIVLSPSLQSFPPAEAIRSSHLDSYIRLPSFQVSTSPDSQDDRFSFRKAFEFRNADECGFADHKTTGVCDPTLVHAAITLDVQYLRGSIAAVHSILQHSLCPENVFFHFLVSETDMETLVRSTFPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVFVDNISKLWSTNLRSRTIGAPEYCHANFTKYFTNSFWSDDRFSGTFRGRKPCYFNTGVMVIDLVRWRRAGFTRRIERWMEIQKSNRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRDLHPGPISLLHWSGSGKPWLRLDSKRPCPLDALWAPYDLYRHPH

>GhGATL11\_At

MVALPFLGRLSFLLLIATTTTTAFAIGIHHGSIIRKPSSGVLNFREAPEFRNGDVCGTNASERIHIAMTLDVNYLRGTMAAVLSVLMHSTCPENTEFHFLWGKYEPEVLVSINSTFPYLNFRLYRFDSNRVRGKISRSIRQALDQPLNYARIYLADMLPPDVKRVLYLDSDLVVVDDIVKLWEVDLEGKVLAAPEYCHANFTKYFTDLFWSDKELSSTFNGRKPCYFNTGVMVVDVDKWRQGGYTPKVEEWMALQKQKRIYTLGSLPPFLLVLAGNIKAVHHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYGSSDHSLEE

>GhGATL13\_At

MLWIIQFSGFFSAAMMMIVLSPSLQSFPPAEAIRSSHLDSYIRLPSFQVSTSPDSQDDRFSFRKAFEFRNADECGFADHQTTGVCDPTLVHVAITLDVQYLRGLIAAVHSILQHSLCPENVFFHFLVSETDMETLVRSTFPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVFVDDISKLWNTNLRSRTIGAPEYCHANFTKYFTNSFWSDDRFSGTFRGRKPCYFNTGVMVIDLVRWRRAGFTRRIERWMEIQKSNRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRDLHPGPISLLHWSGSGKPWLRLDSKRPCPLDALWAPYDLYRHPH

>GhGATL9\_Dt

MHPSKPLNLFFILTVMIRLCFADLPSFREAPAFRNGRECPQTTWSSLDKEIHNPSIIHIAMTLDTAYLRGSVAGVFSVLHHATCPENIVFHFVTTHRHGAKLTRAITSTFPYLNFHLYYFNTNLVKGKISSSIRRALDQPLNYARMYLADLLPAGVRRIIYFDSDLIVVDDVINLWSINLRSHVLGAPEYCHANFTNYFTSKFWSNPAFSASFKGRPRNPCYFNTGVMVIDLWKWREGKYTEKLENWMRIQKRYRIYELGSLPPFLLVFAGDVEGMEHRWNQHGLGGDNLEGLCRALHPGPVSLLHWSGKGKPWLRIDSKRPCPLDSLWAPYDLFRHPSLFSNS

>GhGATL15\_Dt

MRSIFHAAAAVFLLHFFLTVTFSVGIRTIGGGDGSGPGFGFSEAPDYRNGVECPVSVNKEVVSSCDPDLVHVAMTLDSEYLRGSIAAVHSVLRHASCPENVFFHFIAAEFDPASPRVLSKLVRSTFPSLNFKIYIFREDAVINLISSSIRQALENPLNYARNYLGDILDLCVDRVIYLDSDLVVVDDIHKLWNTALTNSRVIGAPEYCHANFTKYFTDGFWSDPVLSRVFHSRRPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKRRIYELGSLPPFLLVFAGNVEAIDHKWNQHGLGGDNVRGSCRSLHTGPVSLLHWSGKGKPWVRLDARNPCPLDHLWKPYDLYKGSSIKDRSSFPSSIFLGFSSFLS

>GhGATL2\_Dt

MSKPQHYHFVLLLSTVVVALAAIANAAAATSITPRFKEAPSFYNSPDCPLIIDESHGFSILFSDQAVHVAMTLDAAYIRGTVAAILSILQHSSCPQNIAFHFVASADASLLRATISSSFPHLNFLVYPFCDSSVSRLISTSIRSALDCPLNYARSYLANLLPSCVHRVVYLDSDLVLIDDIAKLAATPLGDNSVLAAPEYCNANFTSYFTSTFWSNTYFSLTFANRKACYFNTGVMVIDLDRWREGDYTTKIEEWMEVQKRMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFIGLCRDLHHGPVSLLHWSGKGKPWARLDANGPCPLDALWEPYDLLQPKTPFALDS

>GhGATL9\_At

MHPSKPLNLFFILTVMIRLCFADLPSFREAPAFRNGRECPQTTWSSLDKEIHNPSIIHIAMTLDTAYLRGSVAGVFSVLHHATCPENIVFHFVTTHRHGAKLTRAITSTFPYLNFHLYYFNTNLVKGKISSSIRRALDQPLNYARMYLADLLPAGVRRIIYFDSDLIVVDDVINLWSINLRSHVLGAPEYCHANFTNYFTSKFWSNPAFAASFKGRPRNPCYFNTGVMVIDLWKWREGKYTEKLENWMRIQKRYRIYELGSLPPFLLVFAGDVEGMEHRWNQHGLGGDNLEGLCRALHPGPVSLLHWSGKGKPWLRIDSKRPCPLDSLWAPYDLFRHPSLFSNS

>GhGATL16\_Dt

MFLSRSVLAFIFLSSLLLFPANSIRLFKAEDESDLFMEAPVYQNGPHCPVLAIHSVVKHGSCPQNVFFHFIASDSSSVVPTQLTRIVKSVFPSLSFKVYVFQKKLVRDLVSSSIRQALDNPLNYARIYLADLLETCIQKVIYLDSDTIVVDNIQKLWNINLTGSRTIGAPEYCNANFEKYFTNDFWSNPRFSKVFEGKRACYFNTGVMVMDLGRWRQGDYTREIEKWMRVQKDKRIYELGSLPPFLLVFGGDIEAIDHRWNQHGLGGDNLVNSCRTLHPGPISLLHWSGKGKPWVRLDAKRPCSVDFLWAPYDLYKFHGYSRHRQLDGFRFDSL

>GhGATL16\_At

MFLSRSVLGFIFLSSLLLFPANSIRLFKAEDESDLFMEAPVYQNGPHCPVLAIHSVVKHGSCPQNVFFHFIASDSSLVVPTQLTRIVKSVFQSLSFKVYVFQKKLVSDLVSSSIRQALDNPLNYARIYLADLLETCIQKVIYLDSDTIVVDDIQKLWNINLTGSRTIGAPEYCNANFDKYFTSDFWSSPGFSKVFEGKRACYFNTGVMVMDLGRWRQGDYTREIEKWMRVQKDKRIYELGSLPPFLLVFGGDIEAIDHRWNQHGLGGDNLVNSCRTLHPGPVSLLHWSGKGKPWVRLDAKRPCSIDFLWAPYDLYKFHRYSRHRQLDGFRFDSL

>GhGATL15\_At

MHSIFHAAAAVFLLHFFLTVTFSVGIRTIGGGDGSGPGFGFSEAPDYRNGVECPVSVNKEVVSSCDPDLVHVAMTLDSEYLRGSIAAVHSVLRHASCPENVFFHFIAAEFDPASPRVLSKLVRSTFPSLNFKIYIFREDAVINLISSSIRQALENPLNYARNYLGDILDLCVDRVIYLDSDLVVVDDIHKLWNTALTNSRVIGAPEYCHANFTKYFTDGFWSDPVLSRVFHSRRPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKRRIYELGSLPPFLLVFAGNVEAIDHKWNQHGLGGDNVRGSCRSLHTGPVSLLHWSGKGKPWVRLDARNPCPLDHLWKPYDLYKGSSIKDRSSFPSSIFLGFSSYLS

>GhGATL3\_At

MSKFALVIPPNKLHRHHHHRHHLFLLFLLISAVNAAPSLASTTTNNDQKFKEAPQFYNAPTCPSINGTTNEMCSHEAVHVAMTLDAAYSRGSMTAIFSILQHSSCPQNILFHFVSTSTADHRHLRLTITHSFPSLKFQIYPYDSSVVSGLISTSIRSALDSPLNYARNYLADLLPHCIHRIVYLDSDLVLVDDIAKLAATPLDENTVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKPCYFNTGVMVIDLQKWREGDYTIKIIEWMELQKRIRIYELGSLPPFLLVFAGTIAPVDHRWNQHGLGGDNYRGLCRNLHPGRVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALEP

>GhGATL3\_Dt

MSKFALVIPPNHPHRHHHHRHHLFLLFLLISAINAAPSSATTTTNNDQKFKEAPQFYNAPTCPSINGTTNEMCSHEAVHVAMTLDAAYLRGSMAAIFSILQHSSCPQNILFHFVSTSTADHRHLLLTITHSFPSLKFQIYPYDSSVVSGLISTSIRSALDSPLNYARNYLADLLPHCIHDIVYLDSDLVLVDDIAKLAATPLDENTVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKPCYFNTGVMVIDLQKWREGDYTIKIIEWMELQKRIRIYELGSLPPFLLVFAGTIAPVDHRWNQHGLGGDNYRGLCRNLHPGRVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES

>GhGATL12\_Dt

MFPSKSFPPAEAIRSSHLHAYLRLPSYQVSSSTYSPLDRFSFRKASEFGNADKCRSTDHKITGVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSLCPENVFFHFLVSDTDLETLVRSTFPQLKFKAYYFDPAIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDIAKLWSTNLGSRTIGAPEYCHANFTKYFTSSFWSAERFSGTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMEIQKTDRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRGLHPGPVSLLHWSGSGKPWDRLDSRRPCPLDALWAPYDLYRHSH\*

>ATGATL3

MSSLRLRLCLLLLLPITISCVTVTLTDLPAFREAPAFRNGRECSKTTWIPSDHEHNPSIIHIAMTLDAIYLRGSVAGVFSVLQHASCPENIVFHFIATHRRSADLRRIISSTFPYLTYHIYHFDPNLVRSKISSSIRRALDQPLNYARIYLADLLPIAVRRVIYFDSDLVVVDDVAKLWRIDLRRHVVGAPEYCHANFTNYFTSRFWSSQGYKSALKDRKPCYFNTGVMVIDLGKWRERRVTVKLETWMRIQKRHRIYELGSLPPFLLVFAGDVEPVEHRWNQHGLGGDNLEGLCRNLHPGPVSLLHWSGKGKPWLRLDSRRPCPLDSLWAPYDLFRYSPLISDS

>ATGATL9

MRLRFPMKSAVLAFAIFLVFIPLFSVGIRMIPGRLTAVSATVGNGFDLGSFVEAPEYRNGKECVSQSLNRENFVSSCDASLVHVAMTLDSEYLRGSIAAVHSMLRHASCPENVFFHLIAAEFDPASPRVLSQLVRSTFPSLNFKVYIFREDTVINLISSSIRQALENPLNYARNYLGDILDPCVDRVIYLDSDIIVVDDITKLWNTSLTGSRIIGAPEYCHANFTKYFTSGFWSDPALPGFFSGRKPCYFNTGVMVMDLVRWREGNYREKLETWMQIQKKKRIYDLGSLPPFLLVFAGNVEAIDHRWNQHGLGGDNVRGSCRSLHKGPVSLLHWSGKGKPWVRLDEKRPCPLDHLWEPYDLYEHKIERAKDQSLFGFSSLSELTEDSSFF

>ATGATL1

MSQHLLLLILLSLLLLHKPISATTIIQKFKEAPQFYNSADCPLIDDSESDDDVVAKPIFCSRRAVHVAMTLDAAYIRGSVAAVLSVLQHSSCPENIVFHFVASASADASSLRATISSSFPYLDFTVYVFNVSSVSRLISSSIRSALDCPLNYARSYLADLLPPCVRRVVYLDSDLILVDDIAKLAATDLGRDSVLAAPEYCNANFTSYFTSTFWSNPTLSLTFADRKACYFNTGVMVIDLSRWREGAYTSRIEEWMAMQKRMRIYELGSLPPFLLVFAGLIKPVNHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDAGRPCPLDALWAPYDLLQTPFALDS

>ATGATL8

MSSRFSLTVVCLIALLPFVVGIRLIPARITSVGDGGGGGGNNGFSKLGPFMEAPEYRNGKECVSSSVNRENFVSSSSSSNDPSLVHIAMTLDSEYLRGSIAAVHSVLRHASCPENVFFHFIAAEFDSASPRVLSQLVRSTFPSLNFKVYIFREDTVINLISSSIRLALENPLNYARNYLGDILDRSVERVIYLDSDVITVDDITKLWNTVLTGSRVIGAPEYCHANFTQYFTSGFWSDPALPGLISGQKPCYFNTGVMVMDLVRWREGNYREKLEQWMQLQKKMRIYDLGSLPPFLLVFAGNVEAIDHRWNQHGLGGDNIRGSCRSLHPGPVSLLHWSGKGKPWVRLDEKRPCPLDHLWEPYDLYKHKIERAKDQSLLGFASLSELTDDSSFL

>ATGATL5

MHWITRFSAFFSAALAMILLSPSLQSFSPAAAIRSSHPYADEFKPQQNSDYSSFRESPMFRNAEQCRSSGEDSGVCNPNLVHVAITLDIDYLRGSIAAVNSILQHSMCPQSVFFHFLVSSESQNLESLIRSTFPKLTNLKIYYFAPETVQSLISSSVRQALEQPLNYARNYLADLLEPCVKRVIYLDSDLVVVDDIVKLWKTGLGQRTIGAPEYCHANFTKYFTGGFWSDKRFNGTFKGRNPCYFNTGVMVIDLKKWRQFRFTKRIEKWMEIQKIERIYELGSLPPFLLVFAGHVAPISHRWNQHGLGGDNVRGSCRDLHSGPVSLLHWSGSGKPWLRLDSKLPCPLDTLWAPYDLYKHSH

>ATGATL2

MHSKFILYLSILAVFTVSFAGGERFKEAPKFFNSPECLTIENDEDFVCSDKAIHVAMTLDTAYLRGSMAVILSVLQHSSCPQNIVFHFVTSKQSHRLQNYVVASFPYLKFRIYPYDVAAISGLISTSIRSALDSPLNYARNYLADILPTCLSRVVYLDSDLILVDDISKLFSTHIPTDVVLAAPEYCNANFTTYFTPTFWSNPSLSITLSLNRRATPCYFNTGVMVIELKKWREGDYTRKIIEWMELQKRIRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDDGRPCPLDALWVPYDLLESRFDLIES

>ATGATL4

MASRSLSYTQLLGLLSFILLLVTTTTMAVRVGVILHKPSAPTLPVFREAPAFRNGDQCGTREADQIHIAMTLDTNYLRGTMAAVLSLLQHSTCPENLSFHFLSLPHFENDLFTSIKSTFPYLNFKIYQFDPNLVRSKISKSIRQALDQPLNYARIYLADIIPSSVDRIIYLDSDLVVVDDIEKLWHVEMEGKVVAAPEYCHANFTHYFTRTFWSDPVLVKVLEGKRPCYFNTGVMVVDVNKWRKGMYTQKVEEWMTIQKQKRIYHLGSLPPFLLIFAGDIKAVNHRWNQHGLGGDNFEGRCRTLHPGPISLLHWSGKGKPWLRLDSRKPCIVDHLWAPYDLYRSSRHSLEE

>ATGATL7

MLWIMRFSGLFSAALVIIVLSPSLQSFPPAEAIRSSHLDAYLRFPSSDPPPHRFSFRKAPVFRNAADCAAADIDSGVCNPSLVHVAITLDFEYLRGSIAAVHSILKHSSCPESVFFHFLVSETDLESLIRSTFPELKLKVYYFDPEIVRTLISTSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLIVVDDIAKLWMTKLGSKTIGAPEYCHANFTKYFTPAFWSDERFSGAFSGRKPCYFNTGVMVMDLERWRRVGYTEVIEKWMEIQKSDRIYELGSLPPFLLVFAGEVAPIEHRWNQHGLGGDNVRGSCRDLHPGPVSLLHWSGSGKPWFRLDSRRPCPLDTLWAPYDLYGHYSR

>ATGATL10

MMSGSRLASRLIIIFSIISTSFFTVESIRLFPDSFDDASSDLMEAPAYQNGLDCSVLAKNRLLLACDPSAVHIAMTLDPAYLRGTVSAVHSILKHTSCPENIFFHFIASGTSQGSLAKTLSSVFPSLSFKVYTFEETTVKNLISSSIRQALDSPLNYARSYLSEILSSCVSRVIYLDSDVIVVDDIQKLWKISLSGSRTIGAPEYCHANFTKYFTDSFWSDQKLSSVFDSKTPCYFNTGVMVIDLERWREGDYTRKIENWMKIQKEDKRIYELGSLPPFLLVFGGDIEAIDHQWNQHGLGGDNIVSSCRSLHPGPVSLIHWSGKGKPWVRLDDGKPCPIDYLWAPYDLHKSQRQYLQYNQELEIL

>ATGATL6

MLWITRFAGLFSAAMAVIVLSPSLQSFPPAAAIRSSPSPIFRKAPAVFNNGDECLSSGGVCNPSLVHVAITLDVEYLRGSIAAVNSILQHSVCPESVFFHFIAVSEETNLLESLVRSVFPRLKFNIYDFAPETVRGLISSSVRQALEQPLNYARSYLADLLEPCVNRVIYLDSDLVVVDDIAKLWKTSLGSRIIGAPEYCHANFTKYFTGGFWSEERFSGTFRGRKPCYFNTGVMVIDLKKWRRGGYTKRIEKWMEIQRRERIYELGSLPPFLLVFSGHVAPISHRWNQHGLGGDNVRGSCRDLHPGPVSLLHWSGSGKPWIRLDSKRPCPLDALWTPYDLYRHSH

>GrGATL6

MPKPQLLHFLHVLSFNVFAIAAVIATVTAATVTLQLKEAPQFYNSPDCPSITNIEDDPNGESSIFCSDQAVHVAVTLDSPYIRGSMAVTLSVLQHSSCPQNIVFHFVTSAATNVSFLHATISASFPYLNFQIYPFDDASVSRLISTSIRSALDCPLNYARSYLANLLPLCVTRVVYLDSDLILVDDIAKLAATPLGDNSVLAAPQYCNANFTSYFTTTFWSNPSLYLTFANRKPCYFNTGVMVMDLDRWRNGDYTTKIEEWMEIQKQMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRNLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFVLDS\*

>GrGATL17

MRFILYAAALLLLHFLLTVSFCLAIRTTVGGDGLGFRFPEAPYYRNGVECPVSSGDRNLVQVAMTLDFEYLRGSIAAVHSVVRHASCPENIFFHFIAAEFDPASPRVLSKLVRSTFPSLNFRIYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDLQVGRVIYLDSDLVLVDDILKLWNTTLTNSRVIGAPEYCHANFTKYFTAGFWSDPVISRVFRSRKPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKKKIYELGSLPPYLLVFAGNVEGIDHRWNQHGLGGDNIRGSCRSLHPGPVSLLHWSGKGKPWVRLDGGSPCPLDHIWESYDLYKGNLIKHQSFPSAFANFFEYPSYLF\*

>GrGATL5

MPKSPSLFDFHLLLLFTIFSLAAADAIAAARPITQQFKEAPQFYNSEICPKIVGEDDESDNGTSVFLCSGQSVHVAMTLDSAYIRGSMAAVLSILQHSSCPQNIVFHFVASATANASFLHATISSSFPYLNFQVYSFDDSSVSRLISTSIRSALDCPLNYARSYLADLLPSCVGRIVYLDSDLVLVDDIAKLAATQLGDNSVLAAPEHCNANFTSYFTLTFWSSPTLSLTFANRKPCYFNTGVMVIDLDRWRRGDYTKKIEEWMEIQKRTRIYELGSLPPFLLVFAGNIVAVDHRWNQHGLGGDNFKGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALDS\*

>GrGATL4

MSKPPRFDLLLVLLFTVIALASDSVTATPITQLFKEAPQFYNSPDCAVLVDEDESDGEASILCSDQAVHVAMTLDTAYIRGSMAAILSVLQHSSCPQNIAFHFVASATANATFLRATISSSFPYLNFRVYPFDDSSVSRLISTSIRSALDCPLNYARSYLANLLPPCVRRVVYLDSDLVLVDDIAKLAATPLGDDSVLAAPEHCNANFTTYFTPTFWSNPSLSLTFANRKPCYFNTGVMVIDLDRWREGDYTTKIEEWMELQKRIRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLETPFALDA\*

>GrGATL9

MHPSKPLNLFFILTVMIRLCFADLPSFREAPAFRNGRECPQTTWSSLDKEIHNPSIIHIAMTLDTAYLRGSVAGVFSVLHHATCPENIVFHFVTTHRHGAKLTRAITSTFPYLNFHLYYFNTNLVKGKISSSIRRALDQPLNYARMYLADLLPAGVRRIIYFDSDLIVVDDVINLWSINLRSHVLGAPEYCHANFTNYFTSKFWSNPAFSASFKGRPRNPCYFNTGVMVIDLWKWREGKYTEKLENWMRIQKRYRIYELGSLPPFLLVFAGDVEGMEHRWNQHGLGGDNLEGLCRALHPGPVSLLHWSGKGKPWLRIDSKRPCPLDSLWAPYDLFRHPSLFSNS\*

>GrGATL11

MVALPFLGRLSFLLLIATTTTTAFAIGIHHGSIIRKPSSGVSNFREAPKFRNGDVCGTNASERIHIAMTLDVNYLRGTMAAVLSVLMHSTCPENTEFHFLWGKYEPEVLVSINSTFPYLNFRLYHFDSDRVRGKISRSIRQALDQPLNYARIYLADMLPPDVKRVLYLDSDLVVVDDIVKLWEVDLEGKVLAAPEYCHANFTKYFTDLFWSDKELSSTFNGRKPCYFNTGVMVVDVDKWRQGGYTPKVEEWMALQKQKRIYTLGSLPPFLLVLAGNIKAVHHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCAVDHLWAPYDLYGSPDHSLEE\*

>GrGATL7

MPEPHGHLHRHHLLLLLFLLITATNSAPASATTTNYQIFKEAPQFYNSPACPSLDTNEMCSHQAVHVAMTLDAAYLRGSMAAILSVLQHSSCPQNIRFHFIPSSTANHQHLRLTISRSFPSLKFQIYPYDSSKVSGLISTSIRSALDCPLNYARNYLANLLPPCLSRVVYLDSDLVLVDDISKLAATPLGDRSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKACYFNTGVMVIDLQRWRQGDYTTKIIEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRNLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES\*

>GrGATL13

MLWIMQFSGFFSAAMMMIVLSPSLQSFPPAEAIRSSHLDSYIRLPSFQVSISPDSQDDRFSFRKAFEFRNADECGFADHKTTGVCDPTLVHVAITLDVQYLRGSIAAVHSILQHSLCPENVFFHFLVSETDMETLVRSTFPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVFVDNISKLWSTNLRSRTIGAPEYCHANFTKYFTNSFWSDDRFSGTFRGRKPCYFNTGVMVIDLVRWRRAGFTRRIERWMEIQKSNRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRDLHPGPISLLHWSGSGKPWLRLDSKRPCPLDALWAPYDLYRHPH\*

>GrGATL1

MRRNHLSYPNSLFFTFNINRLFRYRVNITCIYIDSVLMMKVICTMAHLLHRLLIFTILIAMAATVTPITHQHFKEASKFYNSAACLSISEPYILCSHQALHVAMTIDKAYIRGSMAAILSVLQHSSCPHNIAFHFLISATANASLLRATISSSFPYLYFRLYPFDHSSVAPLISTSIRSALDCPLNYARIYLASLLPSCIHRVLYLDSDLILVDDIAELAAIQLGDNSVLAATEYCSANFASYFTPTFWSNPCLSLTFANRKACYFNTGVMVMDLDRWREGDYTRKIEEWMEIQKRTRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFDGLCRDLHPGPVSVLHWSGKGKPWARLDAKTPCLLDALWASYDLLDTSFAFDS\*

>GrGATL3

MSKFALVIPPNHLHRHHHHHLFLLFLLISAINAVPSSATTTTNNDQKFKEAPQFYNAPTCPSINGTTNEMCSHEAVHVAMTLDAAYLRGSMAAIFSILQHSSCPQNILFHFVSTSTADHRHLLLTITHSFPSLKFQIYPYDSSVVSGLISTSIRSALDSPLNYARNYLADLLPHCIHRIVYLDSDLVLVDDIAKLAATPLDENTVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKPCYFNTGVMVIDLQKWREGDYTIKIIEWMELQKRIRIYELGSLPPFLLVFAGTIAPVDHRWNQHGLGGDNYRGLCRNLHPGRVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES\*

>GrGATL15

MRSIFHAAAAVFLLRFFLTVTFSVGIRTIGGDGSGPGFGFSEAPDYRNGVECPVSVNKEVVSSCDPDLVHVAMTLDSEYLRGSIAAVHSVLRHASCPENVFFHFIAAEFDPASPRVLSKLVRSTFPSLNFKIYIFREDAVINLISSSIRQALENPLNYARNYLGDILDLCVDRVIYLDSDLVVVDDIHKLWNTALTNSRVIGAPEYCHANFTKYFTDGFWSDPVLSRVFHSRRPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKRRIYELGSLPPFLLVFAGNVEAIDHKWNQHGLGGDNVRGSCRSLHTGPVSLLHWSGKGKPWVRLDARNPCPLDHLWKPYDLYKGSSIKDRSSFPSSIFLGFSSYLS\*

>GrGATL2

MSKPQHFHFVLLLSTVVVALAAIANAAAATSITPRFKEAPSFYNSPDCPLIIDENHGFSILFSDQAVHVAMTLDTAYIRGTVAAILSILQHSSCPQNIAFHFVYYERAILRRATISSSFPHLNFLVYPFYDSSVSRLLSTSIRSALDCPLNYARSYLANLLPSCVHRVVYLDSDLVLIDDIAKLAATPLGDNSVLAAPEYCNANFTSYFTSTFWSNTYFSLTFANRKACYFNTGVMVIDLDRWREGDYTTKIEEWMEVQKRMRIYELGSLPPFLLVFAGNIVPVDRRWNQHGLGGDNFIGLCRDLHHGPVSLLHWSGKGKPWARLDANRPCPLDALWEPYDLLQPKTPFALDS\*

>GrGATL10

MALWRTLSIPIASPHGLILSFLLLLHSAVTTTVAIRVRTIIHDPSPVKLPVFREAPAFRNGDSCGSNKDDRIHIAMTLDENYLRGTMAAVLSMLQHSTCPENLSFHFLCAHSDVKLVSSIESTFPYLNFKIYRFDSNRVRGKISKSIRQALDQPLNYARIYLADILPADVKRVLYLDSDLVVVDDIGKLWDVDMEDKVLAAPEYCHANFTVYFNDAFWSDPVLSNTFQGRNPCYFNTGVMVVDVDKWRKGGYTKKVEQWMAFHKKKRIYHLGSLPPFLLVLAGNIKPVDHRWNQHGLGGDNFEGKCRNLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYRSSRHFLEE\*

>GrGATL14

MVDLKRILLFFRSSLFILLADWLDFKSKKKKRRGICSSKILWIRRFSGFFFAAMLMIILSPSLHSFPPAEAIKSSHLDSYLRLQSYQASHSSKYRFSFRKASGFRNADECGFTDRKITGVCDPSLVHVAITLDVVYLRGSMAAVHSILQHSLCPENIFFHFIVSDADLETLVRSTIPQLKFKVYYFDPETVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDITKLWITNLGSRTIGAPEYCHANFTNYFTGGFWSDQRFSRTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMQIQKRYRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVKGSCRELHPGPVSLLHWSGSGKPWLRLDSNRPCPLDALWAPYDLYGHPH\*

>GrGATL8

MPKLALIPPHDHHRHHRQLLLIFLLISATTAAPASATTNYQVFKEAPQFYNSPTCPSIHTNGMCCDQAVHVAMALDTAYLRGLMAAILSILQHSSCPQNILFHFIASATANHQHFRYTIFRAFPALVFQIYPYDSKAVSGLISTSIRSALDCPLNYARNYLPNLLPRCLRRVVYLDSDLVLVDDMAKLAATPLGDSSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFSGRKACYFNTGVMVIDLQRWRAGDYTTKIVEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRDLHPGPTSLLHWSGKGKPWARLDANRPCPLDAFWAPYDLLQTSSALES\*

>GrGATL12

MLWVMQFSGFFSAAMLMIVLSPSFQSFPPAEAIRSSHLHAYLRLPSYQVSSSTYSPLDRFSFRKASEFGNADKCRSTDHKITGVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSLCPENVFFHFLVSDTDLETLVRSTFPQLKFKAYYFDPAIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDIAKLWSTNLGSRTIGAPEYCHANFTKYFTSGFWSAERFSGTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMEIQKTDRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRGLHPGPVSLLHWSGSGKPWDRLDSRRPCPLDALWAPYDLYRHSH\*

>GrGATL16

MFLSRFVLAFIFLSSLLLFPANSIRLFKAEDESDLFMEAPVYQNGPHCPVLAIHSVVKHGSCPQNVFFHFIASDSSSVVPTQLTRIVKSVFPSLSFKVYVFQKKLVRDLVSSSIRQALDNPLNYARIYLADLLETCIQKVIYLDSDTIVVDNIQKLWNINLTGSRTIGAPEYCNANFDKYFTSDFWSNPRFSKVFEGKRACYFNTGVMVMDLGRWRQGDYTREIEKWMRVQKDKRIYELGSLPPFLLVFGGDIEAIDHRWNQHGLGGDNLVNSCRTLHPGPISLLHWSGKGKPWVRLDAKRPCSVDFLWAPYDLYKFHGYSRHRQLDGFRFDSL\*

>GaGATL1

MVGDPWPLFFPYFNTPLVPTTLPSISSSPPPQTPHFYALYPFDHSSVAPLISTSIRSALDCPLNYARIYL

ASLLPSCIHRVLYLDSDLILVDDVAELAAIQLGDNSVLAATEYCSANFVSYFTPTFWSNPCLSLTFANRK

ACYFNTGVMVMDLDRWREGDYTRKIEEWMEIQKRMRIYELGSLPPFLLVESTWAWGDNFDGLCRDLHPGPVSVLHWSGKGKPWARLDAKTPCLLDALWASYDLMDTSFAFDS

>GaGATL3

MSKFALVIPANQLHRHHHHHHRHHLFLLFLLISAVNAAPSLASTTTNNDQKFKEAPQFYNAPTCPSINGTTNEMCSHEAVHVAMTLDAAYSRGSMAAIFSILQHSSCPQNILFHFVSTSTADHRHLRLTITHSFPSLKFQIYPYDSSVVSGLISTSIRSALDSPLNYARNYLADLLPHCIHRIVYLDSDLVLVDDIAKLAATPLDENTVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKPCYFNTGVMVIDLQKWREGDYTTKIIEWMELQKRIRIYELGSLPPFLLVFAGTIAPVDHRWNQHGLGGDNYRGLCRNLHPGRVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES

>GaGATL15

MHSIFHAAAAVFLLHFFLTVTFSVGIRTIGGGDGSGPGFGFSEAPDYRNGVECPVSVNKEVVSSCDPDLVHVAMTLDSEYLRGSIAAVHSVLRHASCPENVFFHFIAAEFDPASPRVLSKLVRSTFPSLNFKIYIFREDAVINLISSSIRQALENPLNYARNYLGDILDLCVDRVIYLDSDLVVVDDIHKLWNTALTNSRVIGAPEYCHANFTKYFTDGFWSDPVLSRVFHSRRPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKRRIYELGSLPPFLLVFAGNVEAIDHKWNQHGLGGDNVRGSCRSLHTGPVSLLHWSGKGKPWVRLDARNPCPLDHLWKPYDLYKGSSIKDRSSFPSSIFLGFSSYLS

>GaGATL16

MFLSRSVLGFIFLSSLLLFPANSIRLFKAEDESDLFMEAPVYQNGPHCPVLGKDTLICDSSIVHIAMTIDPEYLRGTIAAIHSVVKHGSCPQNVFFHFIASDSSLVVPTQLTRIVKSVFQSLSFKVYVFQKKLVSDLVSS

SIRQALDNPLNYARIYLADLLETCIQKVIYLDSDTIVVDDIQKLWNINLTGSRTIGAPEYCNANFDKYFT

SDFWSSPGFSKVFEGKRACYFNTGVMVMDLGRWRQGDYTREIEKWMRVQKDKRIYELGSLPPFLLVFGGDIEAIDHRWNQHGLGGDNLVNSCRTLHPGPVSLLHWSGKGKPWVRLDAKRPCSIDFLWAPYDLYKFHGYSRHRQLDGFRFDSL

>GaGATL17

MRFILYAAALLLLHFLLTVWFCLAIRTTVGGDGLGFRFPEAPYYRNGVECPVSSGDRNLVQVAMTLDFEYLRGSIAAIHSVVRHASCPENIFFHFIAAVFDPASPRVLSKLVRSTFPSLNFRIYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDLQVDRVIYLDSDLVLVDDILKLWNTTLTNSRVIGAPEYCHANFTKYFTAGFWSDPVISRVFRSRKPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKKKIYELGSLPPYLLVFAGNVEGIDHRWNQHGLGGDNIRGSCRSLHPGPVSLLHWSGKGKPWVRLDGGNPCPLDHIWESYDLYKGNLIKHQSFPSAFANFFEYPSYLF

>GaGATL5

MPKSPSLFDFHLLLLFTIFSLAAADAIAAARPITQQFKEAPQFYNSEICPKIVGEDDESDNGTSIFLCSD

QSVHVAMTLDSAYIRGSMAAVLSILQHSSCPQNIVFHFVASATANASFLRATISSSFPYLNFQIYSFDDSSVSRLISTSIRSALDCPLNYARSYLADLLPSCVRRIVYLDSDLVLVDDIAKLAATQLGDNSVLAAPEHCNANFTSYFTLTFWSSATLSLTFANRKPCYFNTGVMVIDLDRWRRGDYTKKIEEWMEIQKRTRIYELGSLPPFLLVFAGSIVAVDHRWNQHGLGGDNFKGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQMPFALDS

>GaGATL9

MHPSKPLNLFFILTVMIRLCFADLPSFREAPAFRNGRECPQTTWSSLDKEIHNPSIIHIAMTLDTAYLRG

SVAGVFSVLHHATCPENIVFHFVTTHRHGAKLTRAITSTFPYLNFHLYYFNTNLVKGKISSSIRRALDQP

LNYARMYLADLLPAGVRRIIYFDSDLIVVDDVINLWSINLRSHVLGAPEYCHANFTNYFTSKFWSNPAFAASFKGRPRNPCYFNTGVMVIDLWKWREGKYTEKLENWMRIQKRYRIYELGSLPPFLLVFAGDVEGMEHRWNQHGLGGDNLEGLCRALHPGPVSLLHWSGKGKPWLRIDSKRPCPLDSLWAPYDLFRHPCLFSNS

>GaGATL4

MSKPPRFDLLLVLLFTVIALASNSVTVATPITQQFKEAPQFYNSPDCAVPVDEDESDGEASILCSDQAVHVAMTLDTAYIRGSMAAILSVLQHSSCPQNIAFHFIASATANASFLRATISSSFPYLNFRVYPFDDSSVSRLISTSIRSALDCPLNYARSYLANLLPPCVRRVVYLDSDLVLVDDIAKLAATPLGDDSVLAAPEHCNANFTTYFTPTFWSNPSLSLTFANRKPCYFNTGVMVIELDRWREGDYTTKIEEWMELQKRIRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFALDS

>GaGATL6

MPKSQLLHFLHVLAFNVFAIAAVIATVTAATVTLQLKEAPQFYNSPDCPSITNIEDDPNGESSIFCSDQAVHVAVTLDSAYIRGSMAVILSVLQHSSCPQNIVFHFVTSAAANVSFLHATISSSFPYLNFQIYPFDDASVSRLISTSIRSALDCPLNYARSYLANLLPLCVTRVVYLDSDLILVDDIAKLAATPLGDNSVLAAPQYCNANFTSYFTTTFWSNPSLSLTFANRKPCYFNTGVMVMDLDRWRNGDYTTKIEEWMEIQKQMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRNLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFVLDS

>GaGATL12

MLWVMQFSGFFSAAMLMIVLSPSFQSFPPAEAIRSSHLHAYLRLSSYQVSSSPYSPLDRFSFRKASEFGNADKCRSTDHKITGVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSLCPENVFFHFLVSDTDLETLVRSTFPQLKFKAYYFDPAIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDIAKLWSTNLGSRTIGAPEYCHANFTKYFTSGFWSAERFSGTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMEIQKTDRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRGLHPGPVSLLHWSGSGKPWDRLDSRRPCPLDALWAPYDLYRHSH

>GaGATL10

MALWRTLPIPIASPHGLILSFLILLHSAVTTTVAIRVRTIIHDPSPVKLPVFREAPAFRNGDSCGSNKDD

RIHIAMTLDENYLRGTMAAVLSMLQHSTCPENLSFHFLCAHSDVELVSSIESTFPYLNFKIYRFDSNRVR

GKISKSIRQALDQPLNYARIYLADILPADVKRVLYLDSDLVVVDDIGKLWDVDMEDKVLAAPEYCHANFTVYFNDAFWSDPVLSNTFQGRNPCYFNTGVMVVDVDKWRKGGYTKKVEQWMAFQKKKRIYHLGSLPPFLLVLAGNIKPVDHRWNQHGLGGDNFEGKCRNLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYRSSRHFLEE

>GaGATL7

MPKPHDHLHRHHLLLLLFLLITATNSAPASATTTNYQRFKEAPQFYNSPACPSLDTNEMCSHQAVHAAMTLDAAYLRGSMAAILSVLQHSSCPQNIRFHFIPSATANHHHLRLTISRSFPSLKFQIYPYDSSKVSGLISTSIRSALDCPLNYARNYLANLLPPCLSRVVYLDSDLVLVDDIAKLAATPLGDRSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKACYFNTGVMVIDLQRWRQGDYTTKIIEWMELQKRIRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRNLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES

>GaGATL11

MVALPFLGRLSFLLLIATTTTTAFAIGIHHGSIIRKPSSGVPNFREAPEFRNGDVCGTNASERIHIAMTL

DVNYLRGTMAAVLSVLMHSTCPENTEFHFLWGKYEPEVLVSINSTFPYLNFRLYRFDSNRVRGKISRSIRQALDQPLNYARIYLADMLPPDVKRVLYLDSDLVVVDDIVKLWEVDLEGKVLAAPEYCHANFTKYFTDLFWSDKELSSTFNGRKPCYFNTGVMVVDVDKWRQGGYTPKVEEWMALQKQKRIYTLGSLPPFLLVLAGNIKAVHHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYGSSDHSLEE

>GaGATL13

MLWIIQFSGFFSAAMVMIVLSPSLQSFPPAEAIRSSHLDSYIRLPSFQVSTSPDSQDDRFSFRKAFEFRN

ADECGFADHQTTGVCDPTLVHVAITLDVQYLRGLIAAVHSILQHSLCPENVFFHFLVSETDMETLVRSTFPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVFVDDISKLWNTNLRSRTIGAPEYCHANFTKYFTNSFWSDDRFSGTFRGRKPCYFNTGVMVIDLVRWRRAGFTRRIERWMEIQKSNRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRDLHPGPISLLHWSGSGKPWLRLDSKRPCPLDALWAPYDLYRHPH

>GaGATL14

MADLKRILLFFRSSLFILLADWLDFKSKKKKRRGICSSKILWIRRFSGFFFAAMLMIILSPSLHSFPPAE

AIKSSHLDSYLRLPSYQASHSSKDRFSFRKASGFRNADECGFTDRKITGVCDPSLVHVAITLDVVYLRGS

IAAVHSILQHSLCPENIFFHFIVSDADLETLVRSTIPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYA

RNYLADLLEPCVRRVIYLDSDLVVVDDISKLWITNLGSRTIGAPEYCHANFTNYFTGGFWSDQRFSRTFKGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMQIQKRYRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVKGSCRELHPGPVSLLHWSGSGKPWLRLDSNRPCPLDALWAPYDLYGHPH

>GaGATL8

MAAILSILQHSSCPQNILFHFIASDNANHHHFRYTISRAFTALVFQIYPYDSKAVSGLISTSIRSALDCP

LNYARNYLPNLLPHCLRRVVYLDSDLVLVDDMAKLTATPLGDSSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFSGRNACYFNTGVMVIDLQRWRAGDYTTKIVEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRDLHPGPTSLLHWSGKGKPWARIDANRPCPLDAFWAPYDLLQTSSSLES

>Zm1d022349

MARACCRMAAAPAAALLLLLVAAASAIRVDVVRISSSSSAPPQPPSPPAFREAPAFRNGDECPPRGSPDGHVDVAMTLDANYLRGTMAAVFSILQHTACPENVAFHFLAAAADPDSDSDPDPLAAIRATFPYLDPSVHRFDPSRVRGRISRSVRHALDQPLNYARIYLADTLPAVVRRVIYLDSDVVVVDDVRKLWSVDLGERHVVAAPEYCHANFTKYFTDAFWSDRELRAAFRDRRPCYFNTGVMVMDVARWRRGGYTRRVEEWMAVQKRKRIYHLGSLPPFLLVLAGDIRPVDHRWNQHGLGGDNVEGRCRSLHPGPISLLHWSGKGKPWLRLDSRKPCTVDYLWAPYDLYKAAATALEE\*

>Zm1d025917

MRVLAVVLLAAACAAAAAGGGGELPEFREAPAFRNGAACAGAPTIHIAMTLDATYLRGSLAGVLSVLRHAACPESIAFHFVASSASPARRLASLRRALAAAFPTLPATVHRFDARLVRGKISSSVRRALDQPLNYARIYLADLLPRSVPRVLYLDSDLLVVDDVARLWATDLGPDAALAAPEYCHANFTSYFTDAFWRHPEYAAVFANRTRAPCYFNTGVMVIDLDRWRSGGYTAKLEYWMEVQKQEARIYELGSLPPFLLVFAGEVKAVGHRWNQHGLGGDNVAGQCRELHPGPVSLLHWSGKGKPWLRLDAGRPCPLDALWAPYDLLRRRGARDDLLDAVA\*

>Zm1d002851

MRVLAVFLLGAAFAAAAGGGGELPEFREAPAFRNGAACADAPTIHIAMTLDGTYLRGSLAGVLSVLRHAACPESVAFHFVASSASPARRLASLRRALAAAFPTLPATVHRFDARLVRGKISSSVRRALDQPLNYARIYLADLLPRSVSRVLYLDSDLLVVDDVARLWATDLGPDAALAAPEYCHANFTSYFTDAFWSHPEYTAVFANRTRVPCYFNTGVMVIDLDRWRSGGYTAKLEYWMEVQKQEARIYELGSLPPFLLVFAGEVKAVEHRWNQHGLGGDNVAGQCRQLHPGPVSLLHWSGKGKPWLRLDAGRPCPLDALWMPYDLLRRRGARDDLLAAVS\*

>Zm1d033385

MTRSPLALALLLLCAAGAAAAVPRYREAPHFTNSAAAQCPPLLQPSDADAACSPHAAVHVAMTLDASYLRGTMAAVLSVLRHASCPESIHFHFIASASSGSSATAEALRATVRASFPSLAFRVYPFADEARVAGLISTSIRGALDRPLNYARSYLASTLPACVRRVVYLDSDVVLTDDIAALAATPLPGEGTAVAAPQYCGANFTAYFTPGFWASPALSSAFAGRRACYFNTGVMVLDLARWRRAGYTAQIEEWMELQKRVRIYELGSLPPFLLVFAGRIASVDHRWNQHGLGGDNYRGLCRGLHAGAVSLLHWSGKGKPWDRLDAGRPCPLDAVWAKYDLLRPAAGIETS\*

>Zm1d029235

MMIRQPSSSSSVLMFREAPAFRNGPDCGADGRVDIAMTLDANYLRGTMAAVLSILQHTACPESVAFHFLTADADADGHGLSAALRASFPFLDLRVYRFDPSRVRDRISRSVRQELDQPLNYARVYLADTLPRDVRRVTYLDSDVVVVDDVRTLASVDLAGHVVAAPEYCHANFSNYFTDAFWSHPALNGTFHGRRPCYFNTGVMVMDVDKWRAGGYTRRVEEWMAVQKRRRIYHLGSLPPFLLVFAGHIRAVDHRWNQHGLGGDNVEGRCRGLHPGPISLLHWSGKGKPWLRLDARRPCSVDYLWAPYDLYRYSSPVIDEW\*

>Zm1d028824

MLWVARLSGFLSAAMVMVVLSPSLQSFPPAEAIRSSQFDGSVRFPGQIAGGARGVAFRRAPSFRNAADCGAGAGNGTAANVCDPSLVHTAITLDEEYLRGSVAAVHSVVQHARCPESVFFHFLVSDPSLGDLVRAVFPQLRFKVYYFDPGRVRGLISTSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVLVDDVAKLWRTDLGGRTVGAPEYCHANFTKYFTSRFWSDQRFAGTFVGRRPCYFNTGVMVLDLERWRRAGYTQRIERWMEIQKSPPGRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVLGSCRDLHPGPVSLLHWSGSGKPWARLGAGRPCPLDALWAPFDLYGPAGAGGEESR\*

>Zm1d047685MLWVARLSGLLSAAMVVVVLSPSLQSFPPAEAIRSSQFDGSVRFPGQIAGGARGVAFRRAPPFRNAADCGAGADNGTGANVCDPWLVHIAITLDNEYLRGSVAAVHSVVQHARCPESVFFHFLVSDPGLGDLVRAVFPQLRFKVYYLDPGRVRGLISTSVRQALEQPLNYARNYLAELLEPCVRRAIYLDSDLVVVDDVAKLWRTDLGGRTVGAPEYCHANFTKYFTGRFWSDQRFAGTFAGRRPCYFNTGVMVVDLERWRQAGYTQRIERWMEVQKSAAGRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVLGS

CRDLHPGPVSLLHWSGSGKPWARLGAGRPCPLDALWAPFDLYDPGGGAEESPYKF\*

>Zm1d044752

MGGAAGEAMWAAVVAATVVFLAVEVSGAASALPRFAEAPEYRNGEGCPAAAAGVCDPGLVHIAMTLDTHYLRGSMAAVYSLLKHASCPESIFFHFLAAEAGAVDGADPEPELLRRAVAASFPSLRFEIYPFRAEAVAGLISASVRAALEAPLNYARNHLADLLPRCVPRAIYLDSDVLAADDVRRLWETRLPAAAVVAAPEYCHANFSRYFTPAFWSDPVLGARVFAGRRRPPCYFNTGVMVIDLRRWRAGNYRQRIERWMEIQKQKRIYELGSLPPFLLVFAGEVEAVDHRWNQHGLGGNNVHGSCRPLHAGPVSLMHWSGKGKPWDRLDAGRPCPLDHTWKSYDLYIPGDSGGAASPASGPALSASVFSW\*

>Zm1d052292

MGAASPAMWAGLVLVALLAVSGPAVAAGLPRFAEAPEYRNGEGCPAPVAGAGVCDPGLVHIAMTLDAHYLRGSMAAIYSLLKHASCPESLFFHFLAAAEGGGAPAASGLRAVVAASFPSLSFEIYPFRADAVAGLISASVRAALEAPLNYARNHLAGLLPRCVPRAIYLDSDVLAVDDVRWLWETRLPAAAVVAAPEYCHANFSRYFTDAFWDDPVLGARVFAGRRRAPCYFNTGVMVIDLRRWRVGNYRQRIERWMEMQKEKRIYELGSLPPFLLVFAGEIEAVDHRWNQHGLGGDNVFGSCRPLHNGPVSLMHWSGKGKPWDRLDAGKPCPLDHTWKAYDLYIGENDSSSSGPSRSALSSLAACAATAAAASQLPPSAVQDSEINLSFTLPFTGDGSS

GSRPQECSRKGTYHLKLKPEKNIKAVF\*

>Zm1d017984

MGAASPAMWAGLVLVVLLAASGPASAGLPRFAEAPEYRNGDGCPAPVTGAGVCDPGLVHIAMTLDAHYLRGSMAAIYSLLKHASCPESIFFHFLAAEGGGAPAVAELRAAVAASFPSLRFEIYPFRADAVAGLISASVRAALEAPLNYARNHLADLLPRCVPRAIYLDSDVLAVDDVRRLWETRLPAAAVVAAPEYCHANFSRYFTEAFWDDPVLGARVFAGRRRAPCYFNTGVMVIDLRRWRVGNYRQRIERWMEMQKEKRIYELGSLPPFLLVFAGEIEAVDHRWNQHGLGGDNVFGSCRPLHNGPVSLMHWSGKGKPWDRLDAGKPCPLDHTWKSYDLYIGENDSSPASGPSRSALSSLVAW\*

>VIT\_214s066g02350.1

MEANTMVCVRGFVLVLLLFLSPANAIRSFPSKVRDGVGESGIKSHVGLQFAEAPEYRNGPQCPISSGKEGLVSVCDPVLVHIAMTLDVEYLRGSVAAVHSVLRHASCPDNIFFHFIASDSNSMNPDDLSGIVRSVFPSLNFRVHVFNESLVKGLISSSIRRALDNPLNYARSYLADMLDGCVDRVIYLDSDVVVVDDIQKLWRTNLMGSRVIGAPVYCHANFTKYFSDKFWFDGELSGVFAGKKPCYFNTGVMVMDLGRWRGGDYTRRIEKWMEVQKERRIYELGSLPPFLLVFGGEVEGIDHRWNQHGLGGDNVVSSCRPLHPGPASLLHWSGKEKPWRRFDAGKPCPVDHLWAPYDLLRNRQQQDQLLISSYTSL\*

>VIT\_201s011g03050.1

MLPFPPLAIVLILSIAVHFPATVTSGDLPSFSEAPAFRNGEECPRTTWSSLPKGSYNPSIIHIAMTLDATYLRGSIAGVLSVLQHASCPENIVFHFLASHRRAELRRIIVTTFPYLSFHLYHFDTNLVKGKISSSIRRALDQPLNYARIYLADLLPGGVRRIIYFDSDLIVVDDVAKLWEINLGPHVLGAPEYCHANFTNYFTAKFWSNPAFTTSFRGRKPCYFNTGVMVIDLWRWREGKFTERLETWMRIQKRYRIYQLGSLPPFLLVFAGDVEGVEHRWNQHGLGGDNLEGLCRNLHPGPVSLLHWSGKGKPWLRLDSKRPCPLDSLWAPYDLFRHASLISDS\*

>VIT\_201s026g00980.1

MLGFGLNPVHLAVLAFILFSPVCLGIRSFPGRDVAGGDYGYEGFFRFAEAPDYRNGEECPAKGHKGYVSSCDPSLVHIAMTLDSEYLRGSIAAVHSILRHSSCPENVFFHFIAAEFDPASPRVLTQLVRSTFPSLNFKVYIFREDTVINLISSSIRSALENPLNYARNYLGDILDPCVERVIYIDSDLVVVDDIRKLWNITLTESRVIGAPEYCHAVFEKYFTDEFWSDSVLPRVFDSRKPCYFNTGVMVMDLVRWRKGNYRRKIENWMELQRRRRIYELGSLPPFLLVFAGNVEAIDHRWNQHGLGGDNVKGSCRPLHPGPVSLLHWSGKGKPWSRLDARKPCPVDHLWEPYDLYKPHRNHRLNHQQMLLSASSSTLVGLIRRNWLSTVVGGDYSFVEFFC\*

>VIT\_218s001g11860.1

MRTPPLLTLFFFFLVIYLFSLSFTAANATTLLSQHFREAPQFYNSPDCPSLIEEDNEDDDDASEEDSNGGYICSDLAVHVAMTLDTAYIRGSVAAILSVLQHSSCPQNVVFHFVASASSNASLLRATISTTFPYLRFQVYSFDDSAVAGLISTSIRSALDCPLNYARSYLANILPFCVRRVVYLDSDLVLVDDIGKLAATPLGDSSVLAAPEYCNANFTTYFTPTFWSNPSLSLTFANRKACYFNTGVMVIDLDRWRAGDYTSKIEDWMELQKRMRIYELGSLPPFLLVFAGNIVAVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWSPYDLLQTPFSLDS\*

>VIT\_207s005g01040.1

MDSSLSASSFLKGSFVPTASGLRYREKGRLIRSIFHFLSLKTLVDRRGTLGFLFSSLASLVTNPLFEFKSEKKVLRAEVYPLKMMWFMRFSGLLFAIMVMILFSPHFQSFPPAEAIRSSHHDGNLRVPILIPAGDSSRLFSFRKASAFNNAEECGFRDRNFSGKSSVCDPFLVHVAITLDVHYLRGSMAAVHSILQHSQCPEDIFFHFLVSETHLEILVRSTFPQLKFKVYYFNPEIVRNLISTSVREALEHPLNYARNYLADLLEPCVRRVIYLDSDLIVVDDIYKLWSTSLGTRTIGAPEYCHANFTRYFTDKFWSEKRYYGTFDGRKPCYFNTGVIVIDLAKWRRFGFTKRIERWMEVQKNNRIYELGSLPPYLLVFAGHVAPIEHRWNQHGLGGDNVKGSCRELHPGPVSLLHWSGSGKPWARLDMKAPCPIDAVWSPYDLYRPLR\*

>VIT\_207s104g00680.1

MALWSPPSSLPLLGLLSIIIFLRPTSVVTSPSGIRHGIIRKPSSYEPAVVLFREAPAFRNGDACGSSDADRIHVVMTLDANYLRGTIAALLSILQHSTCPENIDFHFLWSHFESDIFSSINSTFPFLNFKVYRFDSNRVRGKISKSIRRALDQPLNYARIYLGDILPADVRRVIYLDSDLVMVDDIAKLWGVELGDKVLAAPEYCHANFTNYFTSAFWSDRALARTFDGRKPCYFNTGVMVVDVEKWREGGYTKKVEEWMAVQKKKRIYQLGSLPPFLLVLAGNMQPVHHRWNQHGLGGDNLEGRCRSLHPGPISLLHWSGKGKPWLRLDSRRPCTVDHLWAPYDLYRSSTSSLEE\*

>VIT\_204s023g01120.1

MPATAPLLRLFLFLCGIIYFLAIHATAYQFREAPQFYNSPDCPSINYDDAEGYSHETSICSDDAVHVAMTLDAAYIRGSMAAILSVLQHATCPENVNFHFVASASADAHHLRRTIANSFPYLRFRVYRFDDSAVSGLISTSIRAALDCPLNYARNYLADLLPTCVRRVVYLDSDLVLVDDIAKLVATPLGDHSVLAAPEYCNANFTSYFTPTFWSNPSLSLTFAGRNACYFNTGVMVIDLQRWRAGDYTTKIVEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHKWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLKTPFALDN\*

>VIT\_205s020g02380.1

MAFWSSSMLPLLGLLSLFFLHPFSTSSSVHAIRLGAVVRRPSPDVPIFREAPAFRNGDACGTRDVDGIHVSMTLDANYLRGTMAAVLSILQHSTCPENLSFHFLSAQHVPEIVSTIQATFPYLNFRVYRFDSNRVRGKISKSIRRALDQPLNYARIYLADILPANVRRVIYLDSDLVMVDDISNLWGVDLGDKVVAAPEYCHANFTKYFTDEFWSSPEMAKTFKGRSPCYFNTGVMVVDVDRWRKGGYTQKVEEWMAVQKQNRIYDLGSLPPFLLVLAGNIKAVDHRWNQHGLGGDNLEGKCRNLHPGPISLLHWSGKGKPWLRLDSRKPCAVDHLWAPYDLYRSSRVSLEE\*

>Thecc1EG041698t1

MPSSKPLNIFLLLTVTINLCFAELPSFREAPAFRNGGECPKTTWSSLDKKVHNPSLIHIAMTLDTAYLRGSIAGVFSVLHHATCPENIVFHFITTHRRGAELTRAITSTFPYLNFHLYHFDSNLVKGKISSSIRRALDQPLNYARMYLADLLPAGVRRIIYFDSDLIVVDDVNKLWSINLGSHVLGAPEYCHANFTNYFTSKFWSNPVFTASFKGRSRNPCYFNTGVMVIDLWKWREGKYTEKLENWMRIQKRYRIYELGSLPPFLLVFAGNVEGMEHRWNQHGLGGDNLEGLCRALHPGPVSLLHWSGKGKPWLRIDSKKPCPLDSLWAPYDLFRHPSLFSDS\*

>Thecc1EG000465t1

MSKLALFPPHHLHRHHLLLVLLLFFLLASATNAAATTAYHRFKEAPQFYNSPSCRSLGSSGASDMCSDEGVHVAMTLDAAYLRGSMAAILSVLQHSSCPQNILFHFIASSTANHHHLRHKISHSFPSLKFQIYPYASSAVSGLISTSIRSALDCPLNYARNYLANILPPCLRRVVYLDSDLVLVDDIAKLAATPLGDNSVLAAPEYCNANFTSYFTPTFWSNPTLSLTFAGRKACYFNTGVMVIDMQRWREGDYTTKIIEWMELQKRMRIYELGSLPPFLLVFAGNIAPVDHRWNQHGLGGDNYRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQAPFALDWRLCSRLIPIALFLFLSIILFRRRVSYLPNQESDFGASSHGSYRLVALETWFVLPCEKE\*

>Thecc1EG004746t1

MLWIMRFSGFFSAAMVMIVLSPSLQSFPPAEAIRSSHLDSYLRLPSYQLSTSPHSLEDRFSFRKASEFRNADECGFTGHKITGVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSLCPENIFFHFLVSETNLETLVRSTFPQLKFKVYYFDPEIVRNLISSSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDISKLWSTNLGSRTIGAPEYCHANFTKYFTGGFWSDQRLSGTFNGRKPCYFNTGVMVIDLVKWRRVGYTKRIERWMEIQKSDRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVRGSCRDLHPGPVSLLHWSGSGKPWLRLDSKKPCPLDALWAPYDLYGHSE\*

>Thecc1EG004469t1

MQTTSMCTLKCPVFLFSLKLGIEYENPKWKPLSKWLPFSLLFYPNPIPTVPSSKPPIEGRMASLPLLGLLSLILTATAATATTTSATGIRHGIIRKPSSDVPVFREAPAFRNGDICGSNASDRIHIAMTLDANYLRGTMAAVLSILQHSTCPENVEFHFLWGKYEPEVLVSINSTFPYLNFRVYRFDPNRVRDKISKSIRQALDQPLNYARIYLADILPADVRRVLYLDSDLVVVDDILKLWEVDLEGKVLAAPEYCHANFTKYFTDLFWSDKGLASTFEGRHPCYFNTGVMVVDVDKWRQGGYTQKVEEWMAVQKQKRIYTLGSLPPFLLVLAGNIKAVNHRWNQHGLGGDNLEGRCRSLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYNSSIQSLEE\*

>Thecc1EG017924t1

MFVSRSVFGVIFLASLLLFPVNAIRLFTEKVTSSGGDETERESDLFMKFAEAPEYHNGPECPVLAEESLLCDPSVVHIAMTIDPEYLRGSTAAIHSVVKHSSCPENVFFHLIASDSSFVNANDLTQIVKSAFPSLSFKVYVFQENLVRNLISSSIRQALDSPLNYARSYLADIFEACVERVIYLDSDTIVVDDTQKLWRITLTGSRTIGAPEYCHANFAKYFTGEFWSDPELSRVFEGKRPCYFNTGVMVMDLARWREGDYTRKIERWMRIQKEKRIYKLGSLPPFLLVFGGDVEAIDHRWNQHGLGGDNLVNSCRSLHPGPVSLLHWSGRGKPWVRLDAGRPCPVDFLWAPYDLHK\*

>Thecc1EG021073t1

MASWRTSTSIASLLGLLSFLLLHCSTTSTAIRVSTIIRNPSPMKLPIFREAPAFRNGDSCGSEEAYRIHIAMTLDANYLRGTMAAVLSMLQHSTCPENLSFHFLCAHSDSELVSSIKSTFPYLNFTIYRFDSNRVRGKISKSIRQALDQPLNYARIYLADILPADVKRVIYLDSDLVVVDDVGKLWGVDMEDNVLAAPEYCHANFTLYFNDAFWSDPVLSKTFQGRNPCYFNTGVMVVDVEKWRRGGYTKKVEQWMAFQKQKRIYHLGSLPPFLLVLAGNIKAVNHRWNQHGLGGDNFEGKCRNLHPGPISLLHWSGKGKPWLRLDSRKPCVVDHLWAPYDLYRSSRHFLED\*

>Thecc1EG033980t1

MPRSPALFHFLLLSLFAVFFLANATAVSTMAQQFKEAPQFYNSLDCPVIVDEDEEGEGSILCSDQAVHVAMTLDKAYIRGSMAAILSVLQHSSCPQNIAFHFVASATANASLLRATISSSFPYLNFQVYPFDDSSVSRLISTSIRSALDCPLNYARSYLANLLPLCVRRVVYLDSDLVLVDDIAKLAATPLGDNSVLAAPEYCNANFTSYFTLTFWSNPSLSLTFANRKACYFNTGVMVIDLDRWRDGDYTTKIEEWMELQKRMRIYELGSLPPFLLVFAGNIVPVNHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFALDS\*

>Thecc1EG010134t1

MRSILYAAAVLLVHFLLSARFCVGIRTISGGDGLGFGFSEAPDYRNGVECPVSVNTEVVSSCDPSLVHVAMTLDSEYLRGSIAAVHSVLRHASCPENIFFHFIAAEFDPASPRVLSKLVRSTFPSLNFKIYIFREDTVINLISSSIRQALENPLNYARNYLGDILDLCVDRVIYLDSDLVVVDDILKLWNTTLTNSRVIGAPEYCHANFTKYFTDGFWSDPVISRVFQSRKPCYFNTGVMVMDLVRWREGNYRKRIENWMEIQRKRRIYELGSLPPFLLVFAGNVEAIDHRWNQHGLGGDNVRGSCRSLHPGAVSLLHWSGKGKPWVRLDARKPCPLDHLWEPYDLYKGNLVKDQSSSSSSSSTGSSIFLGFSSYLL\*

>Sobic.010G101400.1.p

MGGAAMWAAALAATVVFLAVEVSGAAGALPRFAEAPEYRNGEGCPAAAAGVCDPGLVHIAMTLDAHYLRGSMAAVYSLLKHASCPESIFFHFLAAEADGEEDPEPELLRRAVAASFPSLRFEIYPFRAEAVAGLISASVRAALEAPLNYARNHLADLLPRCVPRAIYLDSDVLAADDVRRLWETRLPAAAVVAAPEYCHANFSRYFTPAFWSDPELGARVFAGRRRPPCYFNTGVMVIDLRRWRAGNYRQRIERWMEIQKVKRIYELGSLPPFLLVFAGEVEAVDHRWNQHGLGGDNVHGSCRPLHAGPVSLMHWSGKGKPWDRLDAGRPCPLDHTWKSYDLYIPSDSSGAASPASGPALSASVLSW\*

>Sobic.004G244100.1.p

MGAPSPAMWAGLVLVALLAASGPAATAAAGLPRFAEAPEYRNGEGCPAPVAGAGVCDPGLVHIAMTLDAHYLRGSMAAIYSLLKHASCPESLFFHFLAAEGGGAPAVADLRAAVSASFPSLRFEIYPFRADAVAGLISASVRAALEAPLNYARNHLADLLPRCVPRAIYLDSDVLAVDDVRRLWETRLPAAAVVAAPEYCHANFSRYFTEAFWNDPVLGARVFAGRRRAPCYFNTGVMVIDLRRWRVGNYRQRIERWMEMQKEKRIYELGSLPPFLLVFAGEIEAVDHRWNQHGLGGDNVFGSCRPLHNGPVSLMHWSGKGKPWDRLDAGKPCPLDHTWRSYDLYIGENDSSSASGPSRSALSSSAAW\*

>Sobic.002G398400.1.p

MARACRMAPLLLLLVAVAASGIRVDVIRLPSSSSAPPPLPPSSPAFREAPAFRNGDECPPRGSPDGRVDVAMTLDANYLRGTMAAVFSILQHTACPENVAFHFLAAAGDYQHDSDPLAAIRATFPYLDPSVHRFDPSRVRGRISRSVRHALDQPLNYARIYLADTLPATVRRVIYLDSDVVVVDDVRKLWSVDLGDRHVVAAPEYCHANFTKYFTDAFWSDEELSAAFRGRRPCYFNTGVMVMDVARWRRGGYTRRVEEWMAVQKRKRIYHLGSLPPFLLVLAGDIRPVDHRWNQHGLGGDNVEGRCRSLHPGPISLLHWSGKGKPWLRLDARKPCTVDYLWAPYDLYKAAATALEE\*

>Sobic.001G138200.1.p

MTRSPLTLILLLLLCAAAATAAVPRYREAPHFTNSAAAQCPPPLHPSDADAACSPHAAVHVAMTLDASYLRGTMAAVLSVLRHASCPESIHFHFIASASPKSRATAEELGATVRASFPSLAFRVYPFADEARVAGLISTSIRGALDRPLNYARSYLASTLPPCVRRVVYLDSDVVLTDDIASLAATPLPGEEETAVAAPQYCGANFTAYFTPGFWASPALSSTFAGRRACYFNTGVMVLDLARWRRAGYTAQIEEWMELQKRVRIYELGSLPPFLLVFAGRIASVDHRWNQHGLGGDNYRGLCRGLHAGAVSLLHWSGKGKPWDRLDAGRPCPLDAVWAKYDLLRPAAGIESS\*

>Sobic.001G400100.1.p

MLWVARLSGFLSAAMVMVVLSPSLQSFPPAEAIRSSQFDGSVRFPGQIAGGARGIAFRRAPSFRNAADCGAGAGNGTAANVCDPSLVHIAITLDEEYLRGSVAAVHSVVQHARCPESVFFHFLVSDPGLGDLVRAVFPQLRFKVYYFDPERVRGLISTSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVLVDDVAKLWRTDLGGRTVGAPEYCHANFTKYFTGRFWSDQRFAGTFVGRRPCYFNTGVMVLDLERWRQAGYTQRIERWMEIQKSPPGRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVLGSCRDLHPGPVSLLHWSGSGKPWARLGAGRPCPLDALWAPFDLYGPAGAGESR\*

>Sobic.001G364700.1.p

MPSNCAVVVVIAIFVVVVVILSASHAVTGARVGTMMIRQPSSVLMFREAPAFRNGPECDGDGRVDIAMTLDANYLRGTMAAVLSILQHTACPESVAFHFLTADADADDHVGLAAALRASFPFLDLRVYRFDPSRVRDRISRSVRQELDQPLNYARVYLADTLPPDVRRVTYLDSDVIVVDDVRTLASVDLAGHVVAAPEYCHANFSNYFTDAFWSHPALNGTFHGRRPCYFNTGVMVMDVDKWRAGGYTRRVEEWMAVQKRRRIYHLGSLPPFLLVFAGHIRAVDHRWNQHGLGGDNVEGRCRGLHPGPISLLHWSGKGKPWLRLDARRPCSVDYLWAPYDLYRYSSPVIDEW\*

>Sobic.006G157800.1.p

MRVLAVVLLAAACAAAAGGGGELPEFREAPAFRNGAACAGAPTIHIAMTLDATYLRGSLAGVLSVLRHAACPESIAFHFVASSASPARRLDSLRRALAAAFPTLPATVHRFDARLVRGKISSSVRRALDQPLNYARIYLADLLPRSVSRVLYLDSDLLVVDDVARLWATDLGPDAALAAPEYCHANFTSYFTDTFWRHPEYAAVFANRTRVPCYFNTGVMVIDLDRWRSGGYTAKLEYWMEVQKQEARIYELGSLPPFLLVFAGEVKAVEHRWNQHGLGGDNVAGQCRELHPGPVSLLHWSGKGKPWLRLDAGRPCPLDALWAPYDLLRHRGARDDLLAAVA\*

>Potri.010G038300.1.p

MVHFRLHSGVLLYTLVVLFPQLCLGIRSIPTRETNTGAVEVPNGFRFSEAPDYRNGRDCPVSTTNGRSVSSCDPSLVHIAMTLDSEYLRGSIAAVHSVLKHASCPESIFFHFVAAEFDPASPRVLTQLVRSTFPSLNFKVYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDLCVDRVIYLDSDIVVVDDIHKLWNTALSGSRVIGAPEYCHANFTQYFTSVFWSDQVMSGTFSSARRKPCYFNTGVMVMDLVRWREGDYKRRIEKWMEIQKKTRIYELGSLPPFLLVFAGDVEAIDHRWNQHGLGGDNVRGSCRSLHPGPVSLLHWSGKGKPWVRLDAKKPCKLDHLWEPYDLYIIIELNDQSLTGFNSDSEPKRKKE\*

>Potri.010G129400.1.p

MSLLSIFLFLNAVVFSAHGLSSAELPAFREAPAFRNGRECPKTTWLSSLNNYHDPSIIHIAMTLDATYLRGSVAGVLSVLQHAACPENVVFHFIATHRRADLRRTITSTFPYQTFHLYHFNTDLVKGKISSSIRRALDQPLNYARIYLADLLPMSVRRIIYFDSDLILVDDVAKLWNINLGAHVLGAPEYCHANFTNYFNSRFWSNSACAASLRGRRACYFNTGVMVIDLGKWREGKYTERLEYWMKVQKKYRIYELGSLPPFLLVFAGDVEGVGHRWNQHGLGGDNLEGLCRDLHPGPVSLLHWSGKGKPWLRLDSKRPCPLDYLWAPYDLYRHSSLFCDS\*

>Potri.010G242300.1.p

MASCTFILPLGLLSFIIVANTVSSLPSSSGGIRLGVIRKPSADVPVFREAPAFRNGDSCGPLRIHIVMTLDANYLRGTMAAIFSILRHSTCPENMEFHFLWARFDREVFSSIKSTFPYLNFKFYRFDSNRVRGKISKSIRQSLDQPLNYARIYLADIIPSNVKRVIYLDSDLLLVDDIAKLWEVDLEDRVLAAPEYCHANFTYYFSNLFWLDPVLARTFHGRRPCYFNTGVMVVDVEKWRQVQLTQKVEGWMTVQKQKRIYHLGSLPPFLLVLAGNIKGVDHRWNQHGLGGDNMEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCIVDHLWAPYDLYRSSLHVLEE\*

>Potri.007G031700.1.p

MFKLGLKSPPPSSSPHHLLPILLLSIIIINSTATATANGKGFKEAPQFYNSPSCPSISTQDMCSQQAVHVAMTLDFPYLRGTMAAIFSILQHSSCPENIRFHFISSPSSTHLHETITSSFPYLRSQIYSFDTNPVSGLISTSIRSALDSPLNYARNYLANILPPCVPKVVYLDSDLVLVDDIASLAATPLGTGTVLAAPEYCNANFTTYFTPTFWANPMLSLTFSGRNACYFNTGVMVIDLERWREGDYTTKIVEWMELQKRMRIYELGSLPPFLLVFAGNIAAVDHKWNQHGLGGDNFRGLCRNLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLRTPFALES\*

>Potri.002G200200.1.p

MLWILRFSGFFSAALVMIILSPSFQSFPPAEAIHSSNLDGHLRFPLLLSPADSLTQLSFRKSTIFRNADECGFSDHQSRGKTSVCYPSLVHVAITLDVEYLRGSVAAVHSILQHSMCPENVFFHFLVSETNLESLVRSTFPQLKFKVYYFDPEIVRSLISTSVRQALEQPLNYARNYLADLLEPCVKRVIYLDSDLVVVDDIAKLWTTNLGSRIIGAPEYCHANFTKYFTADFWSDKRFSGTFRGRKPCYFNTGVMVIDLVKWRWAGYTKRIERWMEIQKSHRIYELGSLPSYLLVFAGHVAPIEHRWNQHGLGGDNVRGSCRDLHPGPVSLLHWSGSGKPWLRLDSKQPCPLDALWAPYDLYGRPP\*

>Potri.002G132900.1.p

MLMPRLIHKLTLLFLFLSLTTATITQQFKEAPQFYNSPDCHSIDQDGIDSDSESDGDKTIFCSEHAVHVAMTLDTAYIRGSMAAILSVLQHTSCPQNIAFHFVASASANTSLLRATISSSFPYLNFRVYTFDDSSVSRLISTSIRSALDCPLNYARSYLANIIPLCVRRVVYLDSDLVLVDDIAKLAATPLGEQSVLAAPEYCNANFTSYFTPTFWSNPSLSLTFADRKPCYFNTGVMVIDLDRWREGDYTTKIEEWMELQKRIRIYELGSLPPFMLVFAGDIVPVDHRWNQHGLGGDNFKGLCRDLHPGPASLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFALDC\*

>Potri.005G128000.1.p

MYKPGRKLTLPSPPHLLLSLLLLLSIIIINATATATVNTKRFREAPQFYNSPTCPSISTKDMCSQQAVHVAMTLDFPYLRGTMAAILSILQHSSCPENTRFHFISSPSSTYLHETITSSFPYLRSQIHPFDTNSVSGLISTSIRSALDSPLNYARNYLANILPPCVRKAVYLDSDLVLVDDIAMLAATPLGTGTVLAAPEYCNANITAYFTPTFWANPSLSLTFSGRNACYFNTGVMIIDLERWREGDYTTKIVEWMELQKRMRIYELGSLPPFLLVFAGNIAAVDHKWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDENRPCPLDALWAPYDLMQTPFAIDF\*

>Potri.014G125000.1.p

MLWILRFSGFFSAAVVMIILSPSIQSFPPAEAIRSSNLDGYLRFPILPSPPDYLPQLSFRRSTIFRNADECRFSARQIRGKTSVCDPSLVHIAITLDVEYLRGSIAAVHSILLNSLCPENVFFHFLVSETNLESLVRSTFPQLKFKVYYFDPEIVRSLISTSVRQALEQPLNYARNYLADLLETCVKRVIYLDSDLVVVDDIAKLWATNLGSRTIGAPEYCHANFTKYFTSGFWSDKRFSGAFRGRKPCYFNTGVMVIDLVKWRHAQYTKWIERWMEVQKSDRIYDLGSLPPYLLVFAGNVAPIEHRWNQHGLGGDNVRGSCRDLHPGPYSLLHWSGSGKPWLRLDSKQPCPLDFLWSPYDLYGHSRL\*

>Potri.014G040300.1.p

MLMPRLIRKLTLLFTLLFLFLSLTTNAAATTTITQQFKEAPQFYNSPECPSIDQDEIDSEAEPDGDNTIFCSEHAVHVAMTLDAAYIRGSMAAILSVLQHTSCPQNIAFHFVASASANASLLRATISSSFPYLKFRAYTFDDSSVSGLISTSIRSALDCPLNYARSYLANILPLCVRRVVYLDSDLVLVDDIAKLAATPLGEKSVLAAPEYCNANFTSYFTPTFWSNPSLSLTFADRRPCYFNTGVMVIDLDRWREGDYTTKIEEWMELQKRMRIYELGSLPPFLLVFAGDIVPVDHKWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLQTPFALDS\*

>Potri.008G018100.1.p

MASCASSLLLGLLSFLIVANIPSSSSSSGGIRLSIIRKPFAAVPVFREAPAFRNGDSCGLQRIHIVMTLDANYLRGTMAAVLSILQHSTCPENMEFHFLWSRFEREVFSSIKSTFPYLNFKFYRFDSNRVRGKISKSIRQALDQPLNYARIYLADIIPSDVKRVIYLDSDLVVVDDIAKLWEVDLEEKVLAAPEYCHANFTNYFSNLFWLDPVLAKTFHGRRPCYFNTGVMVVDVEKWRQGGITQKVEEWMTVQKQKRIYHLGSLPPFLLVLAGNIKGVDHRWNQHGLGGDNMEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCIVDHLWAPYDLYRSSMHALEE\*

>Potri.008G116900.1.p

MSILCIFLFLTTVVVSVQSLPNAELPAFREAPAFRNGRECPKKTWPSSFNNLNHHRHDPSIIHIAMTLDATYLRGSVAGVLSVLQHAACPEHIVFHFIATHRRADLRRTITSTFPYLTFHLYHFNTDLVRGKISSSIRRALDQPLNYARIYLADLLPFTVRRIIYFDSDLIVVDDVAKLWNINLGAHVLGAPEYCHVNFSYYFNSRFWSSPVYATSFTGRRACYFNTGVMVIDLRKWREGKYTEKLEYWMRVQKKNRIYELGSLPPFLLVFAGDVEGVEHRWNQHGLGGDNLEGLCRDLHPGPVSLLHWSGKGKPWLRLNSKRPCPLDSLWAPYDLYRHPTLFCDT\*

>Potri.008G192600.1.p

MVHFRLHAGVLFFTVVVLFPLLCFGIRSIPSREGNSGAVEVLNGFRFAEAPEYRNGRDCPVLTSNGRLVSSCDPSLVHIAMTLDSEYLRGSIAAVHSVLKHASCPESIFFHFIAAEFDPASPRVLSQLVRSTFPSLNFKVYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDLCVDRVIYLDSDVVVVDDIHKLWTTTLSGARVIGAPEYCHTNLTKYFTDVFWSDPVMSGTFTSARRKPCYFNTGVMVMDLVRWREGNYRGRIEKWMEVQRKTRIYELGSLPPFLLVFAGDVEAMDHQWNQHGLGGDNVRGTCRSLHPGPVSLLHWSGKGKPWVRLDAKRPCKVDHLWEPYDLFIRNNKGYSYSRNDHRRSSG\*

>Os04g44850.1

MRVLAVALLAAAVLAAEAAAELPEFREAPAFRNGAGCAGAPTIHIAMTLDTTYLRGSLAGVLSVLRHAACPESIAFHFVASSASPARRLAALRRALAAAFPTLPATVHRFDARLVRGKISTSVRRALDQPLNYARIYLADLLPRSVSRVLYLDSDLLVVDDVARLWATDLGPDAALAAPEYCHANFTSYFTDAFWSHPEYSSIFTNRGRAPCYFNTGVMVIDLDRWRAGGYTVKLEYWMEVQKQEARIYELGSLPPFLLVFAGEVKAVEHRWNQHGLGGDNVAGQCRELHPGPVSLLHWSGKGKPWLRLDAGRPCPLDALWAPYDLLRRRGARDDLLAAVA\*

>Os07g45260.1

MAPPTAVSASTAGLIWSLSPSLSLVVTTSVALLLVLGGVSGIRVNVIRLPSASPFPAFREAPAFRNGDGCPPARGSAAAEGGRVDVAMTLDANYLRGTMAAVFSILQHTACPESVAFHFLAARSDPDAGDLAAAIRATFPYLGAAVSVYRFDPSRVRGRISRSVRRALDQPLNYARVYLADTLPAGVRRVLYLDSDVVVVDDVRKLWSVDLAGHVVAAPEYCHANFTKYFTDAFWSDGELSGAAFRRGRRRPPCYFNTGVMVMDMGRWRDGGYTRRVEEWMAVQKRRRIYHLGSLPPFLLVLAGDIKAVDHRWNQHGLGGDNAEGKCRSLHPGPVSLLHWSGKGKPWLRLDSRKPCAVDYLWAPYDLYKAAVPALEE\*

>Os03g47530.1

MDDMAKLAQMPRAPLLVLLLMLGVGAAVAVPEYREAPHFTNSAAARCPPPLPATDADAACSPHAAVHVAMTLDAPYLRGTMAAVLSVLRHASCPESVHFHFLASSSSSPEAAAAVRELRDTVRASFPSLAFRVYPFDESRVAGLISTSIRGALDRPLNYARSYLATTLPACVRRVVYLDSDVVVTDDIAALAATPLPGEAAVAAPEYCGANFTAYFTPGFWASRALSEAAFAGRRACYFNTGVMVLDLPRWRRAGYTAQIEEWMELQRRVRIYELGSLPPFLLVFAGRIAAVDHRWNQHGLGGDNYRGLCRGLHAGAVSLLHWSGKGKPWDRLDAGKPCPLDAVWAKYDLLRPAAAIETS\*

>Os03g24510.1

MARCGSAIAAVAALLVLLGGHAAARIRVEHSGMVIRRPSSSIPSFREAPAFRNGEECGGGGRVDVAMTLDANYLRGTMAGVLSILQHTACPESVSFHFLAAGMDADLAAAVRATFPYLDLRVYRFDPSRVRGRISRSIRHALDQPLNYARIYLADTLPPDVRRVIYLDSDVVVVDDIRALASVDLGGHVVGAPEYCHANFTNYFTDAFWSDPALNGTFAGRRPCYFNTGVMVMDVGKWRAGGYTRRVERWMEVQKQTRIYHLGSLPPFLLVLAGDIQAVDHRWNQHGLGGDNVKGRCRGLHPGPISLLHWSGKGKPWIRLDARRPCAVDYLWAPYDLFRPSSPVLEE\*

>Os03g18890.1

MLWAARVSGFFSAAMVMVVLSPSLQSFPPAEAIRSSQFDSHVRFPGQIAGGARGLAFRRAPAFRNAADCGNATGNVCDPSLVHIAITLDEEYLRGSVAAVHSVVQHATCPESVFFHFLVSDPALGDLVRAVFPQLQFKVYYFDPDRVRGLISTSVRQALEQPLNYARNYLADLLEPCVRRVIYLDSDLVVVDDVAKLWRTDLGGRTVGAPEYCHANFTKYFTDRFWSDKQFAGTFAGRRPCYFNTGVMVLDLARWRRTGYTRRIERWMEIQKSPAGRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVFGSCRDLHPGPVSLLHWSGSGKPWARLGAGRPCPLDALWAPFDLYGPADSAAEGSR\*

>Os02g50600.1

MGGNPAMRAGLALVVVVVAVVVGDVGAALPRFAEAPEYRNGEGCPAAVAGAGVCDPGLVHIAMTLDAHYLRGSMAAIYSLLKHASCPESIFFHFLAAADGGEGCGGGVGELRTAVAASFPSLRFEIYPFRADAVTGLISASVRAALEAPLNYARNYLADLLPKCVPRAIYLDSDVLAVDDVRRLWETRLPAAAVVAAPEYCHANFSRYFTETFWSDPQLGDRVFAGRRRAPCYFNTGVMVIDLRRWRVGNYRRRIEVWMELQKEKRIYELGSLPPFLLVFAGEVEAVDHRWNQHGLGGDNVLGSCRPLHKGPVSLMHWSGKGKPWDRLDAGKPCPLDHTWKSYDLYIAEGDSSSASAPFALSSSALPAAAFSW\*

>Os06g13760.1

MPARAAAAAAAVALLLAVCAQAAALPRFAEAPEYRNGEGCPAAATAAAGVCDAGLVHISMTLDAHYLRGSMAAVYSLLKHASCPESLFFHFLAEEEEVGGGGDLRRAVAASFPSLRFEIYAFRAEAVAGLISASVRAALESPLNYARNHLADLLPRCVPRAIYLDSDVLAVDDVRRLWETRLPAAAVVAAPEYCHANFSRYFTPAFWSDPGLGRRVFAGRRRPPCYFNTGVMVIDLRRWRAGNYRHRIERWMEIQKEKRIYELGSLPPFLLVFAGEVEAVDHRWNQHGLGGDNVRGSCRPLHDGPVSLMHWSGKGKPWDRLDAGNPCPLDHTWKSYDLYVAGDDGAAASSPASGPALSSTSTTWPALVFSW\*

>Glyma14g08430.1

MKFNPKSKPPPHLLYFLIILSLSFFFPCVSSSRKQQFKEAPQFYNSPNCPSIEHHDILSSSEEAVHVAMTLDTTYIRGSMAAILSVLQHSSCPQNTFFHFVCSSNANANANTNTNASLLRATISNAFPYLNFQLYPFDDAVVSNLISTSIRAALDCPLNYARSYLPNLLPPRVKRVVYLDSDLVLVDDIAKLATTSLGQNSVLAAPEYCNANFTSYFTPTFWSNPSMSLTFAERKRKACYFNTGVMVIDLERWREGDYTRKIEEWMELQKRMRIYELGSLPPFLLVFAGNIVSVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWMRLDANRPCPLDALWAPYDLLKTSFSLDS\*

>Glyma02g11100.1

MPPTLSLSLSLVLVVLFFAAVDAHFPATGELPTFREAPAFRNGRECRNRPRSDSVIHIAMTLDATYLRGSVAGVFSVLQHASCPENVVFHFIATTHRRTELRRIITATFPYLSFHLYHFDANLVRGKISYSIRRALDQPLNYARMYLADLLPATVRRIIYFDSDLIVVDDVAKLWSIDLHARVLGAPEYCHANFTNYFTHRFWSNPSYAASFKRRDACYFNTGVMVIDLWKWREGRYTEKLETWMRIQKRNRIYELGSLPPFLLVFAGDVERVEHRWNQHGLGGDNLEGLCRDLHPGPVSLLHWSGKGKPWLRIDSKKPCPLDSLWAPYDLFRHSPSLFSDS\*

>Glyma02g01880.1

MLWLMRFSGFFSAAMLVILLSPSLQSFHPAEAIRSSHHLDGLLRLPPPRLSFRPAAPFRNAADGKCASSVPTSVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSQCPENIFFHFLVSETNLESLVKSTFPQLNFKVYYFDPEIVRNLISTSVRQALEQPLNYARNYLADLLEPCVERVIYLDSDLVLVDDIAKLWSTSLGSRTIGAPEYCHANFTKYFTAGFWSDMRFASAFAGRRPCYFNTGVMVIDLVRWRKIGYSKRIERWMEIQKNDRIYELGSLPPFLLVFAGRVAPIEHRWNQHGLGGDNVKGSCRDLHAGPVSLLHWSGSGKPWTRLDSKHPCPLDALWAPYDLYGHAH\*

>Glyma02g06640.1

MAPPSFFFVFFFILIFSCTSATTTQQQRFKEAPKFYNSPTCATLRHHPNPNHTCPDNAVHVAMTLDVSYLRGSMAAILSVLQHTSCPENVIFHFVTAASKSSSAAKLNQTLTTSFPYLNFQIYPFDDDAVSRLISTSIRSALDCPLNYARSYLSTLLPPCVAKIVYLDSDLILVDDISKLAETPLSGTAVLAAPEYCSANFSAYFTPSFWSNPSLSLVLANRRRPPCYFNTGVMVIDLRQWREGEYTTEIEEWMELQKRMRIYELGSLPPFLLVFAGRIAAVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDAGRPCPLDALWAPYDLLETRFAALQA\*

>Glyma02g03090.1

MLLLRQSAVVSSLILCFFFPPLLCLGIRSFPTTADDGAFFHYTEAPEYRNGAGCPVSSTRNFLPSCDPSLVHIAMTLDSGYLRGSIAAVHSVLRHSSCPENVFFHFIAAEFDPASPRVLTRLVRSIFPSLNFKVYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDTCVSRVIYLDSDVVVVDDVGKLWRAAITHGRVIAAPEYCHANFTKYFTDEFWNDPLLSRVFNTREPCYFNTGVMVMDLAKWREGNYKRKIENWMELQRKKRIYELGSLPPFLLVFGGNVEAIDHRWNQHGLGGDNVNGVCRSLHPGPVSLLHWSGKGKPWVRLDEKKPCPLDRLWEPYDLYKQVKDSVRDQNWGFSSSILVGYAHDLL\*

>Glyma06g03770.1

MKFKSRRPQPRALVAFFLILSIFSLPASSSSSSSSSIDDVKSSTIIHQFKEAPEFYNSPECASLTDNEEDSSDRYICSEEAVHVAMTLDTTYIRGSMAAILSVLQHSSCPQNTFFHFVCSSSASLLRAAISHSFPYLNFQLYTFDDSQVSGLISSSIRSALDCPLNYARSYLANLLPICVRRVVYLDSDLILVDDIAKLAATPLGENKVLAAPEYCNANFTSYFTPTFWSNPSLSLTFADRRPCYFNTGVMVIDLERWREGDYTTKIEEWMELQKRMRIYDLGSLPPFLLVFAGNIASVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLNTPFSLDS\*

>Glyma04g03690.1

MKFKSRRLEAEAGALVLFFLILSSSSSSNYAKPSTIIHQFKEAPEFYNSPECASLTHSSDSYICSEEAVHVAMTLDTTYIRGSMAAILSVIQHSSCPQNTFFHFVCSSSASLLRAAISHSFPYLNFHLYTFDDSQVSGLISTSIRSALDCPLNYARSYLPSLLPLCVRRVVYLDSDLILVDDIAKLAATPLGENTVLAAPEYCNANFTSYFTPTFWSNPSLSLTFADRRPCYFNTGVMVIDLERWREGDYTTKIQEWMELQKRMRIYDLGSLPPFLLVFAGNIASVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLNTPFSLDS\*

>Glyma17g36650.1

MKSNPKSKTPPHLLYYLLIILSLLFFFPCVSSTQQFKEAPQFYNSPNCPSIEHNICSEEAVHVAMTLDTTYIRGSMAAILSVLQHSSCPQNTFFHFVCSSNDNTNASLLRATISNTFPYLNFQLYPFHDAVVSGLISTSIRAALDCPLNYARSYLANLIPPCVKRVVYLDSDLVLVDDIAKLATTSLGENNNVLAAPEYCNANFTSYFTPTFWSNPSLSLTFADRKQKACYFNTGVMVIDLERWREGDYTRKIEEWMELQKRMRIYELGSLPPFLLVFAGNIVSVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLRTPFSFDS\*

>Glyma17g02330.1

MVFRSSTSLIGLLSLLFLLSVSSAIRLGLVRRPSPELPLFREAPAFRNGEDCGSSPSATINVAMTLDTNYLRGTMAAVLSMLQHSTCPENLAFHFLSSHDDPPELFSSILSTFPYLKMKIYPFDSNRVRGKISKSIRQALDQPLNYARIYLADTIPENVKRVIYLDSDLVVVDDIAKLYGVDMKGKVVAAPEYCHANFTLYFTDNFWSDPVLAKTFRGRKPCYFNTGVMVMDVDTWRKERYTEKVEEWMAVQKQQKRIYHLGSLPPFLLVLAGNIKAVDHRWNQHGLGGDNFEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCIVDHLWAPYDLYRSSRHFFEE\*

>Glyma13g04780.1

MFLSRSILFVFVFSACLLLIPANGIRSFARTNGYETEVEEVDPFAQFREAPEYRNQRKCTLIDTTNAQLVCDPSLVHVAMTIDWHYLRGSIAAVHSVVKHTSCPLNLFFHFIASDARLDSKDVFERIVHTSFPSLRFKVYVFRESLVDNLISPSIREALDNPLNYARSYLPDLLDQCIERVIYLDSDVIVVDDVQELWKVSLTGSRVIGAPEYCHANFTRYFSYEFWSSAEFSEVFQGKRPCYFNTGVMVMDLVRWRAGDYTRKIEKWMEIQKERRIYKLGSLPPFLLAFGGNVEAIEHRWNQHGLGGDNVRNSCRTLHPGPVSLLHWSGKGKPWTRLDAKMPCSVDFLWAPYDLYIPHHHTYHHYHHHQRIAIGSTHSSF\*

>Glyma01g38520.1

MATSAAPKPNQYYFFTLILHFCLLLIISTSTTQQRFKQAPKFYNSPSCPTIRLSPTDTCSDEAVHVAMTLDVTYLRGSMAAILSVLQHSSCPENIIFHFVTAASSSLLNRTLSTSFPYLKFQIYPFDDAAAVSGLISTSIRSALDCPLNYARNYLANLLPSCVLKIVYLDSDLVLVDDIAKLAATPLGDNNNTVLAAPEYCNANFSAYFTPSFWSNPSLSLTFAGRTPCYFNTGVMVIHLQRWRAGDYTTKIQEWMELQKRMRIYELGSLPPFLLVFAGNIVPVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWARLDANRPCPLDALWAPYDLLLTPFALEA\*

>Glyma01g04460.1

MLPLRLSAVVSSLILCFLFPPLLCLGIRSFPTTADDGAFFHYSEAPEYRNGAGCPVSSTRVSLPSWDPSLVHIAMTLDSGYLRGSIAAVNSVLRHSSCPENVFFHFIAAEFDPASPRVLTRLVGSIFPSLNFKVYIFREDTVINLISSSIRQALENPLNYARNYLGDMLDACVSRVIYLDSDVVVVDDVGKLWRAPITRERVIAAPEYCHANFTKYFTDEFWNDPLLSRVFSTRKPCYFNTGVMVMDLAKWREGNYRRKIENWMELQRKKRIYELGSLPPFLLVFGGNVEAIDHRWNQHGLGGDNLNGVCRSLHPGPVSLLHWSGKGKPWVRLDEKKPCPLDSLWEPYDLYKQVKDRVRDQNWGFSSSILVGYAHDLL\*

>Glyma01g22480.1

MPPKLTLVLVVLFFAPVDAHFPATGELPTFREAPAFRNGRECRNRARSDSVIHIAMTLDATYLRGSVAGVFSVLRHASCPENIVFHFIGTTRRSTELRRIITATFPYLAFYLYQFDANLVRGKISYSIRRALDQPLNYARMYLADLLPATVRRIIYFDSDLIVVDDVAKLWSIDLHARVLGAPEYCHANFTNYFTHRFWSNPSYAASFKGRDACYFNTGVMVIDLWKWREGRYTEKLERWMRIQKRNRIYELGSLPPFLLVFAGDVERVEHRWNQHGLGGDNLEGLCRDLHPGPVSLLHWSGKGKPWLRIDSKKPCPLDSLWAPYDLFRHLPSLFSDS\*

>Glyma19g01910.1

MFISRSILFVFVFSACLLLFPANGIRSFATTNGYETEVEEVDPFVQFREAPEYRNQQKCTLIDTTNVQLVCDPSLVHVAMTIDWHYLRGSIAAVHSVVKHTSCPQNLFFHFIASDARLESKDVFERIVHTSFPSLGFKVYVFRESLVGNLISPSIREALDNPLNYARSYLADLLDQCIERVIYLDSDVVVVDDVQELWKVSLTGSRVIGAPEYCHTNFTRYFSYEFWSSAEFSEVFQGKRPCYFNTGVMVMDLVRWREGGYTRKIEKWMEIQKERRIYKLGSLPPFLLAFGGDVEAIEHRWNQHGLGGDNVRNSCRTLHPGPVSLLHWSGKGKPWTRLDAKMPCSVDFLWAPYDLYIPHHHTHHQHHHHQRIAIGSTHSSF\*

>Glyma19g40180.1

MFRITRFSGFFSAAMFVIVLVILSPSFQSEAIRSSHRFSFRKAPPFRNAAECGSISGETTTVCDPSLVHVAITLDVDYLRGSIAAVHSILHNSLCPENIFFHFLVSDTNLQTLVESTFPNLKFNVYYFDPNIVAHLISSSVRQALEQPLNYARNYLVDLLESCVERVIYLDSDLVVVDDVAKLWSASLDSRAIGAPEYCHANFTKYFTAGFWSEPRLSGTFAQRRACYFNTGVMVMDLVKWRKEGYTKRIERWMEIQKSDRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVKGSCRDLHPGPVSLLHWSGSGKPWIRLSSKRPCPLDSLWAPFDLYAHSSS\*

>Glyma03g37560.1

MLRITRFSGFFSAAMFVTVLVILSPSFQSEAIRSSHRFSFRKAPPFRNAAECASVSGQTTTVCDPSLVHVAITLDVDYLRGSIAAVHSILHNSLCPENIFFHFLVSDTNLQTLVESTFPNLKFNVYFFDPNIVAHLISSSVRQALEQPLNYARNYLVDLLESCVERVIYLDSDLVVVDDVAKLWSASLDSRAIGAPEYCHANFTKYFTAGFWSESRLSGTFAQRRACYFNTGVMVMDLVKWRKEGYTKRIERWMEIQKSDRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVKGSCRDLHPGPVSLLHWSGSGKPWLRLSSKRPCPLDSLWAPFDLYTHPSS\*

>Glyma10g01960.1

MLWLMRFSGFFSAAMLVILLSPSLQSFHPAEAIRSSHHLDGLLRLPPPRLSFRPAPRFRNAADANKCASSSVSTSVCDPSLVHVAITLDVEYLRGSIAAVHSILQHSQCPENIFFHFLVSETNLESLVKSTFPQLNFKVYYFDPEIVRNLISTSVRQALEQPLNYARNYLADLLEPCVERVIYLDSDLVVVDDIAKLWSTSLGSRTIGAPEYCHANFTKYFTAAFWSDTRFARAFAGRRPCYFNTGVMVIDLVRWRRIGYSKRIERWMEIQKNDRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVKGSCRDLHAGPVSLLHWSGSGKPWTRLDSKQPCPLDALWAPYDLYGHAH\*

>Glyma07g38430.1

MVFRSSTSLIGLLSLLFLLLLLPAASSAIRLGLVRRPSPELPLFREAPAFRNGEECGSSPADTINVAMTLDANYLRGTMAAVLSILQHSTCPENLAFHFLSAHDDAPELFSSIRSTFPYLNMKIYRFDSNRVRGKISKSIRQALDQPLNYARIYLADTIPEDVKRVIYFDSDLVVVDDIAKLWGVDMEGKLVAAPEYCHANFTLYFTDNFWSDPVLAKTFEGRKPCYFNTGVMVMDVDTWRKERYTEKVEEWMAVQKQQKRIYHLGSLPPFLLVLAGNIKAVDHRWNQHGLGGDNFEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCIVDHLWAPYDLYRSSRHFFEE\*

>MD13G1046300

MPQGHGPLHLLLAALFLAATVQFPANSAAAELPEFREAPAFRNGRGCPRTAWSSLDQNSHYDPSIIHIAMTLDTTYLRGSVAGVFSVLRHATCPENIVFHFIAASHRSRRSSDLHHVITSTFPYLTFHLYHFDSNLVRGKISYSVRRALDQPLNYARIYLADLLPSGVRRIIYFDSDLIVVDDVARLWRIDLGRRVLGAPEYCHANFTNYFTPKFWSNAAFAAEFKGRSACYFNTGVMVIDLWKWREGKYTQKLEHWMRVQKRCRIYELGSLPPFLLVFAGDVEGVEHRWNQHGLGGDNVEGLCRDLHSGPVSLLHWSGKGKPWLRLDSKQPCPLDSLWAPYDLYRDHRHSSLFSDI\*

>MD13G1178900

MALLSTPTPLPILLGLLSILLFHPITTTSGIRLGILRRPSPHLPVFREAPAFRNGEQCGSENTDAIHVAMTLDANYIRGTMAAVFSLLQHSTCPENLYFHFLSARIAPEFFSSIKSTFPYLNFKTYAFDSNRVRWKISKSIRQALDQPINYARIYLADILPTDMRRVIYLDSDLIVVDDIAKLWSVDMEDKVVAAPEYCRANFSQYFTDAFWSDPDLSKTFQGRNPCYFNTGVMVVDVDKWRKGGYTQKVEEWMALQKRKRLYHLGSLPPFLLVLAGNIKGVDHRWNQHGLGGDNFEGRCRNLHPGPISLLHWSGKGKPWLRLDARKPCTVDHLWAPYDLYHSARHFLEE\*

>MD15G1269900

MLSFFISFILLFTTTTNAAVTTSERLREALATSTTQRFKEAPKFYNSPSCPDLNNHEHKVAVCSDEAVHVAMTLDAAYLRGSMAAILSVLQHSSCPENVIFHFVSSSSTSNSQLLQQTIAKSFPYLKFRVYPFDDSAVEGLISTSIRSALDCPLNYARNYLANILPTCVRHVVYLDSDIILVDDISKLASTPLGPTQVLAAPEYCNANFTSYFTASFWSNPTLSLTFENRKACYFNTGVMVIDLDKWRSGGYTDRIVEWMELQKRMRIYELGSLPPFLLVFAGNIAAVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALES\*

>MD03G1271300

MATSSTSHGLLSLLLLIFLHCLTHGAATTGIRLGIIRKISPDVAIFQEAPAFRNGDVCEHAKKIHIAMTLDSNYLRGTMSAVLSILQHSTCPEIVEFHFLWARFEPEVLSNIKSTFPYLKFNVYRFDSKRVRGKISKSIRQALDQPLNYARIYLADIIPVDVNRVLYLDSDLVVVDDVAKLWKVDLQGKVLAAPEYCHANFTQYFTESFWSDNEMSKTFEGRNPCYFNTGVMVVDVDKWRQGGYTKKMEEWMLVQKQKRIYHLGSLPPFLLVLAGDITAVHHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRRPCTVDHLWAPYDLYRSSTHYFEEREMMRSTVWEGQEGEK\*

>MD16G1180100

MALLSTPTSLPILLGLLSILLFHPITTTSGIRLGFVPRPSPDLPVFREAPAFRNGEQCGSENADGIHVAMTLDANYIRGTMAAVFSLLQHSACPANLYFHFLSAHTTPKFFSSIKSTFPYLNFKTYAFDSDRVRGKISKSIRQALDRPMNYARIYLADILPNEMRRVIYLDSDLVVVDDIAKLWSVDMEDMVVAAPEYCRANFTEYFTNAFWCDQDLSKTFQGRNPCYFNTGVMVVDVDKWRKGGYTQKVEEWMALQKRKRLYHLGSLPPFLLLLAGNIKAVDHRWNQHGLGGDNFEGRCRSLHPGPISLLHWSGKGKPWLRLDSRKPCTVDHLWAPYDLYHSSRHFLEE\*

>MD16G1048100

MPPGHGPLPLLLLLAALFATGTVQFLVNSAAVELPKFREAPAFRNGRGCPRTAWSSLDQHSHYDPSIIHIAMTLDATYLRGSVAGVFSVLQHATCPENIVFHFIAASHRNRRSSDLLRHAITSTFPYLTFHVYHFDSSLVRGKISYSVRRALDQPLNYARIYLADLLPSGVRRIIYFDSDLIVVDDVAKLWRIDLGRRVLGAPEYCHANFTNYFTPKFWSNAAFAAEFKGRRACYFNTGVMVIDLWKWREGKYTQKLEHWMRVQKRCRIYELGSLPPFLLVFAGDVEGVEHRWNQHGLGGDNVEGLCRDLHPGPVSLLHWSGKGKPWLRLDSKRPCPLDSLWAPYDLYRHSSLFSDS\*

>MD02G1155400

MLSFLISFILLFTTTTNATITTSERLREALATATTQRFKEAPKFYNSPSCPDLNNHEHTAVAMCSDEAVHVAMTLDAAYLRGSMAAILSVLQHSSCPENVIFHFVSSSSTSNSQLLQQIIATSFPYLKFRVYPFDDSAVAGLISTSIRSALDCPLNYARNYLANILPTCVRRVVYLDSDLILVDDISKLASTPLGPTQVLAAPEYCNANFSSYFTPTFWSNPTLSLTFENRKACYFNTGVMVIDLDKWRSGGYTERIVEWMELQKRMRIYELGSLPPFLLVFAGNIAAVDHRWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWGPYDLLQTPFALES\*

>MD08G1036800

MPMPPPLLLLLLLLLFLSPATATNAAATTQQFREAPQFYNSQDCPSITTLPDVDVDPDESDDGHMICSPQAVHVAMTLDTAYIRGSMAAILSVLQHSSCPQNAVFHFVASAAANASLLRQTISTSFPYLKFRIYAFDDSHVSGLISTSIRSALDCPLNYADPTSPTFSPSASAAVAVLAAPEYCNANFTSYFTSAFWSNPSLSLTFADRHACYFNTGVMVIDLDRWRGDDYTAKIEEWMELQKRMRIYELGSLPPFLLVFAGKIAPVEHRWNQHGLGGDNFRGLCRDLHPGAVSLLHWSGKGKPWARLEANRPCPLDALWAPYDLLETPFVLDS\*

>MD17G1042500

MLLLKPISLLLLLSLVLIPAAAIRSFPDPQTGKEEGFNMDFSEAPEYTNGISCPALLGSNDRAGKEVCDPSLVHVAMTIDSEYLRGTIAAVHSVFKHASCPENTFFHFVASDSSAVDSHHLSRILKSTFPSLNFRVYVFRESLVSHLISSSIRRALENPLNYARSYLADLLDPCVERVIYLDSDVVVVDDIQKLWEITLSGSRVIGAPEYCHANFTKYFSDEFWKDSELSKVFDQKRPCYFNTGVMVIDLARWRAGGFTRKIETWMEIQKEKRIYELGSLPPFLLVFGGDVEAIHHRWNQHGLGGDNLMNSCRSLHSGPVSLLHWSGRGKPWTRLDLGTPCPVDLLWAPYDLYKHHQSQLQDLNLLQHHHHQQFLML\*

>MD11G1291900

MAVSSTSHGLLSLLLLILIHLLVFLHYPTHVAATTGIRLGIIRKPSPNVAIFREAPAFQNMDACEHAEKIHIAMTLDSNYLRGTMAAMLSILQHSMCPGIVEFHFLWARFDPEVLSNIQSTFPYLKFNVYRFDSNRVRGKISKSIRQALDQPLNYARIYLADILPVDVKRVLYLDSDLVVVDDVAKLWKVDLQGKVLAAPEYCHANFTQYFTESFWSDSEMSKTFEGRNPCYFNTGVMVVDVDKWRQGEYTKKMEEWMVVQKQKRIYHLGSLPPFLLVLAGDITAVHHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCTVDHLWAPYDLYRSSAHHFEE\*

>Prupe.8G268500.1.p

MLWIIRFSGFFSAAMLMIVLSPSLQSFPPAEAIRSSHHHHHLDYSYLRLPPPVLLSDSGSMVGAGGRLNFRKASAFRNSNECASPSPKTQIGDACDPNLVHVAITLDVEYLRGSIAAVHSVLQHSLCPESVFFHFLVSETNLEALVQSTFPQLKFRVYYFDPRMVRSLISTSVRQALEQPLNYARNYLADLLETCVERVIYLDSDLVVVDDISRLWTTSLGSRTIGAPEYCHANFTNYFTPAFWSDKRLSGTFDCRKPCYFNTGVMVIDLIKWRRGRYTKRIEKWMEIQKNRRIYELGSLPPFLLVFAGHVAPIEHRWNQHGLGGDNVKGSCRDLHSGPVSLLHWSGSGKPWLRLDSKRPCPLDALWSPYDLYGHTK\*

>Prupe.8G247500.1.p

MASAKTRGLLSLLLILPLITLATATAGIRLGIILKPSPDVAIFREAPAFRNGDACQPAEKIHIAMTLDSNYLRGTMGAVLSILQHSTCPEFIEFHFLWARFEPEVLSNIKSAFPYLKFNVYRFDSNRVRGKISKSIRQALDQPLNYARIYLADIIPVDVKRVLYLDSDLVVVDDVAKLWKVDLQGKVLAAPEYCHANFSKYFTESFWSDQMFSKTFEGRKPCYFNTGVMVVDVEKWRQGEYTKQMEEWMVVQKQKRIYHLGSLPPFLLVLAGDIRAVDHRWNQHGLGGDNLEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCTVDHLWAPYDLYRSSAHYLEE\*

>Prupe.7G148000.1.p

MLAFLINLILLFASSTNAATAASSGRLKEALATSTPQRFKEAPKFYNSATCPALNTHEHSSTVCSDVAVHVAMTLDAAYLRGSMAAILSVLQHSSCPENIIFHFVSSSSSSNSQALTQTIATSFPYLKFRVYPFNDSAVLGLISTSIRSALDCPLNYARNYLANLLPTCVRRVVYLDSDLILVDDISKLASTPLEPTQVLAAPEYCNANFTSYFTPSFWANPTLSLTFENRRACYFNTGVMVIDLDKWRAGGYTDRIVEWMELQKRMRIYELGSLPPFLLVFAGNIAAVDHQWNQHGLGGDNFRGLCRDLHPGPVSLLHWSGKGKPWVRLDANRPCPLDALWAPYDLLQTPFALEA\*

>Prupe.3G276500.1.p

MGLRFSEAPEYTNGLSCPVLGLNLKSLALACNPSLVHVAMTIDSEYLRGTMAAVHSVLKHASCPDNTFFHFIASDSILVNLQDLTRIVQSTFPSLSFRVYVFRERLVNNLISSSIRQALDNPLNYARSYLADLLDPCVERVIYLDSDVIVVDDVQKLWKISLSGSRVIGAPEYCHANFTKYFSDGFWKDSELSKVFEGKKPCYFNTGVMVMDLVRWREGEYTKKIENWMAIQKERRIYELGSLPPFLLVFGGDVEAIHHRWNQHGLGGDNMVNSCRSLHPGPVSLLHWSGRGKPWSRLDLGMPCPVDLLWAPYDLYKHHHHHHLQDQHHLQHQHHHHQQTQQFSML\*

>Prupe.1G384100.1.p

MPLPQPPPLLPLLLLVAFLILLLPAPSVSAATTSTSNATTTTTQQFREAPQFYNSPDCPSITPLHHDDLDPDESDDDHMMICAYQAVHVAMTLDTAYIRGSMAAILSVLQHSSCPQNAVFHFVASATSNASLLRDTISSSFPYLKFRIYPFDDSHVSGLISISIRSALDCPLNYARSYLADLLPLCVRRVVYLDSDLILVDDIAKLAATPLGPSSVLAAPEYCNANFTTYFTPAFWSNPSLSLTFADRKACYFNTGVMVIDLDRWRGGDYTTKIEEWMELQKRMRIYELGSLPPFLLVFAGNIAPVEHRWNQHGLGGDNFRGLCRDLHPGSVSLLHWSGKGKPWARLEANRPCPLDALWAPYDLLVTPFVLDS\*

>Prupe.1G305600.1.p

MQNQSKYHLSPLSDSISRAPQHQSPIKYQNYPLTKTSLLSSPSRTPFHTSESNPHSNSLHHQTMPPDHGLLYFLLIVLVLTVTVKFPATSAAVQLPKFREAPAFRNGRGCPRTAWSSLDQHSHYNPSIIHIAMTLDTTYLRGSIAGVFSVLQHATCPENIVFHFIAASHHNRRPSDLLSHVITSTFPYLTFHLYHFDSNLVKGKISYSVRRALDQPLNYARIYLADLLPSSVRRIIYFDSDLIVVDDVEKLWSINLGRRVLGAPEYCHANFTNYFTPKFWSNAAFAASFKGRRACYFNTGVMVIDLWKWREGKYTEKLEHWMRVQKRCRIYELGSLPPFLLVFAGDVEGVEHRWNQHGLGGDNLEGLCRDLHPGPVSLLHWSGKGKPWLRLDSKRPCPLDSLWAPYDLYRHSSLFSDS\*

>Prupe.1G147700.1.p

MASWSTSTPLPILLGLLSILLLHPLTTTFGIRLGIIHRRSPDLPVFREAPSFKNGEQCGSKNADGIHVAMTLDANYIRGTMAAVFSLLQHSTCPENLYFHFLSAHIAPEFFSSIKSTFPYLNFKTYAFDSNRVRGKISKSIRQALDQPMNYARIYLANILPPDMGRVIYLDSDLVVVDDIAKLWSVDMEDKVVAAPEYCQANFIQYFTNTFWSDPDLSKTFQGRNPCYFNTGVMVVDVDKWRKGGYTQKVEEWMALQKRKRLYNLGSLPPFLLVLAGNIKAVDHRWNQHGLGGDNFEGKCRSLHPGPISLLHWSGKGKPWLRLDSRKPCTVDHLWAPYDLYHSSRHFLEE\*

>Prupe.1G262000.1.p

MLPFRLYAAVLFVLSISLLFPPFCIGIRSFPTRAIDGGDAFELASAAWARFSEAPDYRNGADCAVSMNKEMVSSCDPSLVHIAMTLDSEYLRGSVAAVHSVLKHASCPENVFFHFIAAEFDPASPRVLTQLVRSTFPSLNFKVYIFREDTVINLISSSIRQALENPLNYARNYLGDILGRCVDRVIYLDSDVLVVDDIHKLWNISLSGLRVIGAPEYCHANFTKYFTDGFWSDPVLSRVFSSRKPCYFNTGVMVMDLVRWRQGNYRKRIENWMELQRKRRIYDLGSLPPFLLVFAGNVEAIDHRWNQHGLGGDNVRGSCRSLHPGPVSLLHWSGKGKPWVRLESKNPCPLDHLWEPYDLYKPLRHHNAAKFQALSSISASTLIGFSSYLS\*

>Sphfalx0002s0011.1.p

MPHTRMVWRMLLLPWPNARNGSIMVTIWPCIMPGFHRCSLGGLHTPAAKPVVVTQEKEEEAEENLSLSPSLPEVVLQQHQCPPHSHHSLHFWLTILPIALIFTILLASIAAQEYSFEVSSSSRTLNSKLHHHLFEPTVYISFAFGPTISSSWGFISGNIGSILKCRWCSFTARSRTQVALVRSSDAFQEDTMAANQTPMQLDRIACPAVAQAADADIFQSSGIKKVEGSMMMTEMVDQQPSGKDMTFCPRPNMMPSDSQTHGVFLQAQVKAEEEQELQLEGLFSREAGAHVTSRHEQSTKLKLPKFRKLTSVPDKTHYDDCSHKKVDCGSDLGSLCSDHFVHIAMTLDVNYLRGSMAAIYSILLHADCPSNIRFHFIATKGKEELENMVAESLPFLHFQTYSFNEESVKSLITHAVRHALEEPLNYARFYLAHMLDPCVKRIIYLDSDVLVLDRIEELWRTDMADSTVATPEYCHTNFTSYFSESFWTNFTLSSTFANKQPCYFNSGVMVINLEKWRENKCTARVEYWMEVQKEQQIYDLGSLPPLLLTFAGDIQPIDHRWNQHGLGGDTLKGDCRPSRNEPASLLHWSGGGKPWQRIDIHQPCPVDNIWAQYDLLEPGH\*

>Sphfalx0031s0153.1.p

MVLHSRRTRGTATMIEILDMALIWALVVQALFSLATLDSAAAAAAAMRSYSQFDEQVEATTTSMSLGAAAGGGRGGGEQQPAAAAAHESSSEAQSLMTTTAAKPREILPSFREAPAFRNDNQCVQSPVVNRTAEGICDSSSVHIAMTLDIAYLRGSMAAVFSILKHTGCPENVIFHFLVGDRDDYDQNDHASSSSSSELLLRSLIDSTFPFLRFKIYHFNEALVKTRISASVRLALEHPLNYARSYLADILEPCVKRVIYLDSDLIVVDDIVKLWGTRLGFRAIGAPEYCHANLTKYFTDSFWNNKEMIKIFDGKKPCYFNTGVMVMNLVKWREQNYRGAIEDWMMKQQETRIYELGSLPPFLLVFAGDVEPIDHRWNKHGLGGDNLEGRCRPLHPGPVSLLHWSGKGKPWIRLDARKPCPVDNLWAPYDLLLPSSSAAASSSLSLSSSSYS\*

>Sphfalx0098s0087.1.p

MVSTSLMRRRRVAAAAATRLEIWVLAAIALVLLQTQLFSASWSLVAVEAIRSQSRQFEQVVESSGSISVRLDHQQQTTAAAHALQLPESAGDHDQELQLVQQQQKIFLSGSASGGAAAAAAAGGKRQQKNLDHKITASSSLPHAFREAPAFRNDEQCVSVNRSKSSSSDSRICGDSNVVHIAMTLDMGYFRGSIAVVYSILKHAACPENVIFHFLAAAAAGDGNNDVTRDSDTAASLELLRSLIDSTFPFLVFKVYRFDESLVKSRISASVRVALEHPLNYARIYLGDILESCIKRVIYLDSDLIVVDDIVKLWDTRLEGSRVIGAPEYCHANLTNYFTDSFWNNKGLSSPIMSFKPGRSKSKPCYFNTGVMVMDLVKWRQQNYRATIENWMKRQKQSRIYELGSLPPFLLVFAGQVQPIDHRWNQHGLGGDNLEGRCRPLHPGPVSLLHWSGKGKPWMRLDAKHPCPVDSLWIPYDLLL

PPSSYS\*

>Sphfalx0010s0142.1.p

MVRILKSTRRSAGIQIWIVVFLLLHAVLSWSLVVEARRYSQFEVVENPLTGQQQAQGRGAGEGDEEPAQQSPTSSSGKHKESWPLFREAPAFRNGNQCVSVHRRKSDHAEDVCDSSSVHIAMTLDVAYLRGSMAAVFSILKHTGCPENVIFHFLVSDRDAELSALIYSTFPFLRFKVYHFDEALVKSRISASVRLALEHPLNYARSYLADILEPCVKRVIYLDSDLIVVDDIVKLWGTRLGSHAIGAPEYCHANLTKYFTASFWNNEGLAKIFDGKRPCYFNTGVMVMDLVKWREQNYRATIEEWMESQKETRIYELGSLPPFLLVFAGDVEPIDHRWNQHGLGGDNLEGRCRSLHPGPVSLLHWSGKGKPWIRLDARKPCPVDNLWAPYDLLLPAASSYSS\*

>Sphfalx0166s0029.1.p

MCDSSSVHIAMTLDVAYLRGSMAAVFSILKHSSCPENVIFHFLAGDRAAELRSLIFSTFPFLRFKVYHFDEELVKSRISPSVRLALEHPLNYARSYLADILEPCVERVIYLDSDLIVVDDIVKLWGTRLGSGSAIGAPEYCHTNFTKYFTDSFWNNKAFTKVFDHGRKQQQQQQKKKSKLCYFNTGVMVMNLVKWREQNYRSKIESWMERQKESRIYELGSLPPFLLLFAGDVEPIDHRWNQHGLGGDNLEGRCRALHPGPVSLLHWSGKGKPWIRLDARNPCPVDHLWAPYDLVLQSSTSVSSSSSYAS\*

>Sphfalx0166s0023.1.p

MVRTLRTRGRAAAVLVALLLQALFWWTTVESIRFSQFAFDQKSSMGGGGGGDELLLQQQQEETTPTEVQKRPEDWPPFREAPAFKNDKQCVSAERKKKKNNGAEEEICDSSAVHIAMTLDVAYLRGSMAAVFSILKHSSCPENVIFHFLVGNRDAGLRSLIFSTFPFLRFKVYHFDEALVKSRISASVRLALEHPLNYARSYLADILEPCVERVIYLDSDLIVVDDIVKLWGTRLGSGAIGAPEYCHTNFTKYFTDSFWSNKAFTKVFNHRRNKPCYFNTGVMVMNLVKWREQNYRSTIESWMKRQKEARIYELGSLPPFLLVFAGDVEPIDHRWNQHGLGGDNLEGRCRPLHPGPVSLLHWSGKGKPWIRLDARKPCSVDNLWAPYDLHLPSMSSYL\*

>Pp3c2\_18670V3.1.p

MAPSATMWRLLPPWQNLHNGAIVSIWPCMPGFHRCSLGLRTPTCMLVDQPAAPDVAEYRQSHSTQLWLTTLPLAIVVTIFLVSIAAQDFNGVDTTSQTQPQFPAYRRVHTGIPFKTRVSTSWSITTSKLGHFFDVKRFHPKSLRSNQSASTRPVKIPEYESTTGQLLGVESVGEHPHPSVQRAAKSSSRSNIGLLPDLVSYSNEGLPLAQGQRQLKNQERFTKPSSTIEQLEKSQFPRFRKAVSLPNRTCSDASQCIDSNCDNEAQGSFCNERLVHIAMTLDINYLRGSMAAIYSILRHAECSGNIRFHFVATNGKEKLEKVVAETLPFLQFQTYPFDESLVKSRISYAVRHALEEPLNYARFYLAHMIDPCVKRIIYLDSDVLVIDRIEELWMINMGNSTVGTPEYCHANFHSYFTERFWRNSSLASIFANKKPCYFNSGVMLINLDRWRKEACTATLEYWMEVQKERHIYELGSLPPLLLTFAGSIQAIDSRWNQHGLGGDILRGDCRPTRNEPASLLHWSGGGKPWQRLDIHQPCPVDSIWAQYDLLEPSG\*

>Pp3c5\_28420V3.1.p

MVHRQGNRPLLTWPLIILSLLSLVSATRVSPFDFRVRPELHSDRSPEPQGPQSYAASESAWPSFREAPVFRNGRRCAFVNRTGNDTCDPNSVHIAMTLDVEYLRGSIAAIFSILKHTACPENVIFHFFAANRDEELRFLVCSIFPFLRFKVYHFDEALVNSRISPSVRPALDHPLNYARSYMSDILEPCIQRVIYLDSDLIVVDDIVKLWGTKLGPHAIGAPEYCHTNMTKYFTDAFWANRTLSRIFDGKKPCYFNTGVMVMDMTKWRIANYRAEIEHWMGVQSRTRIYELGSLPPFLLVFGGLVEPIDHRWNQHGLGGDNLEGKCRSLHPGPVSLLHWSGKGKPWIRIDQKKTCPVDSLWVPYDLLLSPLSYQ\*

>Pp3c1\_18380V3.1.p

MWRLLPPWLIFNNGSIVSFWPCIPGSHRYTLGLRTSMCTLVKQPPTTEVADCHHDRSTQLWLTALSFSIIFSIFLLSIAVQDFTVGDTTSKAQPQLPLNQRIYIGFSLKTRGSSSLNVIAEKLGHFFGFRRFNPNSFRSKQRASTTPVKIPSFGSALGKPMKTEPGGEHQQPSAQQATQSSSGFKTDLLPNLISNSNKGIPWLPSNANCGHEAQGSFCNESLVHIAMTLDANYLRGSMAAIYSILLHAECASNVRFHFVATKEKEELEKEPLNYARFYLAHMIDSCVKRIIYLDLDVLVLGRIEELWMTNMGNSTVGTPEYCHANFPSYFTENFWINSSLASTFANKQPCYFNSGMMLINLERWRKTRCTSTLEYWMEVQKQQHIYELGSLPPLLLTFAGSIQAIDNRWNQHGLGGDIVKGDCRPTRNEPAS\*

>Pp3c25\_14930V3.1.p

MVHRSVSTITSLSIILLTFSALATAVRPSPFDFPARAELHSEPALHSQGSGPQYSSGPEWPEFREAPAFRNGKQCAFVNRTENELDHICDRNSVHIAMTLDVKYLRGSMAAVFSILKHTACPENVIFHFFAADRDEQLRSLIFSTFPFLRFKVYHFDEALVNLRISPSVRPALEHPLNYARSYLADILEPCIQRVIYLDSDLIVVDDIVKLWGTRLGPYAIGAPEYCHTNMTKYFTNAFWQNRTLSRTFDGKKPCYFNTGVMVMDMTKWRTENYRAVIEQWMGVQNRTRIYDLGSLPPFLLVFGGSVEPIDHRWNQHGLGGDNLEGKCRPLHPGPVSLLHWSGKGKPWIRIDQRKTCPVDSLWAPYDLLQPSALSYQ\*

>Pp3c16\_25090V3.1.p

MVCRSVCTLITFSVVLLILSSLASAIRSSPFDSTARDGFYSEPALPPLGSGSQVSSGPAWPEFREAPAFRNGKQCAFVNRTQNELDHICDRNSVHISMTLDVKYLRGSMAAVFSILKHTACPENVIFHFFAADRDEQLRSLVFSTFPFLRFKVYHFNDALVNSRISPSVRPALEHPLNYARSYLADILEPCIQRVIYLDSDLIVVDDIVKLWGTKLGPHAIGAPEYCHTNVTKYFTDAFWNNRILSSTFDGKKPCYFNTGVMVMDMVKWRTENYRAVIEQWMAVQSSTRIYDLDSLPPFLLVFGGSVEPIDHRWNQHGLGGDNLEGKCRPLHPGPVSLLHWSGKGKPWIRIDQKRKCSVDSLWAPYDLLLPSTLSYQ\*