

SCR

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AtSCR LHLTLTLLQCAEAVSADNLEEANKLLEISQLSTPYGTSAQRVAAYFSEAM SARLLNSCLGIYAALP-SRWMPQTHSLKMVSFAQVFNGISPLVKFSH
PsSCR LHLTLTLLQCAEAVSAENLEQANKMLLEISQLSTPFGTSAQRVAAYFSEAI SARLVSSCLGIYATLP-VSSHTP-HNQKVASAFQVFNGISPFVKFSH
OsSCR LHLTLTLLQCAEAVSNADNLEAHRALLEIAELATPFGTSTQRVAAYFAEAM SARLVSSCLGIYAPLPNPSFAAARLHGRVAAAFQVFNGISPFVKFSH
ZmSCR LHLTLTLLQCAEAVNADNLDAAHQTLLEIAELATPFGTSTQRVAAYFAEAM SARLVSSCLGIYAPLP PGPSPAAARLHGRVAAAFQVFNGISPFVKFSH
PrSCR LHLLALLQCAEAVSADNFEANTILPQITELSTPYGNVQRVAAYFAEAM SARLVSSCIGMYSPLP---PIHMSQSQKIVNAFQVFNGISPFVKFSH
PaSCL3 LHLLSLLLQCAEAI SMDKIQQAYSILPQLSEFSTPYGNPQRVAAYFAEGMAARLHNSYLG LCCPLEISR PQLV SINHNFLTA FQT FNSTC PPFVKFSH
PaSCL4 LHLLALLQCAEAV SEDNHEEANSILPHIYELSSPYGSSVHRVAAYFAEALS CRLFSSYIGIYSPI-----MNESRSQSIVSAFQLYNGISPFVKFSH
PtSCL18 LELANLLIACAEAVTSKNVQLVNRLLSRLGELASPESPPMHRVAAYFTEGLTLRVTKLWPHIFQPI---VGDLDLCEDELITGFQLLNHTTPIPKF--

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AtSCR F--TANQAIQEAF EKEDSVHIIDL DIMQGLQWPGLFHILASRPGGPPHVR L TGLGTSMEALQATGKRLSDFTDKLG L PPF EFCPLAEKVG N LDT--ERL
PsSCR F--TANQAIQEAFEREERVHIIDL DIMQGLQWPGLFHILASRPGGPPYVR L TGLGTSME TLEATGKRLSDFANKLGL PPF EFPVAEKVGNIDV--EKL
OsSCR F--TANQAIQEAFEREERVHIIDL DIMQGLQWPGLFHILASRPGGPPRVR L TGLGASMEALEATGKRLSDFADTLGL PPF EFCPVADKAGNLDP--EKL
ZmSCR F--TANQAIQEAFEREERVHIIDL DIMQGLQWPGLFHILASRPGGPPRVR L TGLGASMEALEATGKRLSDFADTLGL PPF EFCVAEAKAGNVDP--EKL
PrSCR F--TANQAIQEAFEREQRVHIIDL DIMQGLQWPGLFHILASRPGGPPHVRITGLGTSLEALEATGKRLSDFAH TLNLP PPF EFPVADKVGKLDP--ERL
PaSCL3 F--TSNQAIL EAFNGESQVHIIDL DIMQGLQWPGLFHILASRPGGCPHVRITGLGTSMEALEATGKRLS SFAHTLKL PPF EFPVAEKLGQLDP--AVL
PaSCL4 F--TANQAIQQV FQGENSVHIIDL DIMQGLQWPGLFHILASRPGSPPFVRITGLGTSMEALEATGKRLSNFAETLGI PPF EFHAVSDKVGNIENLERL
PtSCL18 FQYTANEVILKAFEDKDRVHIIDFDI-QGLQWPALFHS LATRPRPPSHVRITGIGESKEDLQDTGDRLAGFAEALNLP PPF EFHAVVDKL--EDVRLWML

PFYRE

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AtSCR NVRKREAVAVH-WLQ-H-SLYDVTGSDAHTLWLLQRLAPKVVTVVEQDLSH-AGSFLGRFVEAIHYYSALFDSL GASYGEESEERHVVEQQLSKEIR
PsSCR NVSKSEAVAVH-WLQ-H-SLYDVTGSDTNTLWLLQRLAPKVVTVVEQDLSN-AGSFLGRFVEAIHYYSALFDSL GSSYGESEERHVVEQQLSREIR
OsSCR GVTREAVAVH-WLR-H-SLYDVTGSDSNTLWLIQRLAPKVVTMVEQDLSH-SGSFLARFVEAIHYYSALFDSL DASYGSDSPERHVVEQQLSREIR
ZmSCR GVTREAVAVH-WLH-H-SLYDVTGSDSNTLWLIQRLAPKVVTMVEQDLSH-SGSFLARFVEAIHYYSALFDSL DASYGEDSPERHVVEQQLSREIR
PrSCR KVNREGDALAVH-WLH-H-SLYDVTGSDTNTLRLLQRLSPKVI TMVEQDLSH-GGSFLSRFVEAIHYYSALFDSL GASYPEDSHDRHLVEQQLSREIK
PaSCL3 RVRSGDALAVH-WLH-H-SLYDVTGSDTCTLRLLQRLNPKVI TMVEQDLNT-VGPFLNRFVEALHYYSAMFDALGACFNEDNMERHTVEQQLSHEIR
PaSCL4 KVRKGDALAVH-WLQ-H-SLYDVTGSDISTLCLLRRLCPKVI TMVEQDLSH-VGSFLNRFVEAIHYYSAVFDSL GAAYPEDSHERHVVEQQLSCEIK
PtSCL18 HVKEKETVAVN CMLQLHKTLTYDNGAALRGILGLLQSTKPAVVVVVEQEANNDPI FEGRFLQALQYYS AIFDSIDASLPSDS PARLKMEQ-YFAREIR

SAW

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AtSCR NVLAVGGPSRSGEVVKFESWREKMQCCGFGISLAG-NAATQATLLLGMFP SDGYTLVDDNGTLKLGWKDLSLLTASAWTPRS-----
PsSCR NVLAVGGPSRSGEIKFHNWREKLQCCGFRGVS LAG-NAATQASLLLGMFPSEGYTLVEDNGILKLGWKDLC LLTASAWRPPYHTNTIIPHNN--
OsSCR NVLAVGGPARTGDVKFGSWREKLAQSGFRVSS LAG-SAAAQAVLLLGMFP SDGYTLIENGALKLGWKDLC LLTASAWRPIQASGR-----
ZmSCR NVLAVGGPARTGDVKFGSWREKLAQSGFRAAS LAG-SAAAQASLLLGMFP SDGYTLVEENGALKLGWKDLC LLTASAWRPIQVPPCR-----
PrSCR NILAVGGPARTGEIKFDNWRDQLKQTGFKPI SLAG-NAATQATLLLGMFP CQGYTLMEENGTLKLGWKGLCLLTASAWRPAHGLIY-----
PaSCL3 NILAVGGPARTGETKFQNRWTHLQSCGFRQISMRG-NASVQAELLNMFCEGYSLVEEGGILKFGWKDLSLYIASAWTSWTS-----
PaSCL4 NILAVGGPARTGELRFHNWRDQLQAGFSKLS LAG-NAAAQATLLLGMFPCKGYTLVEESGTLRIGWKDLC LLTASAWRPAHHAL-----
PtSCL18 NIIACEGP ERIERHEKFEHWKQLMEEGGFTAVPLGEREH CQARILLDMFPCKNYIVKLEDGRLLTDWLHQFLYTASAWAPQEGGNGGASTSSPA

PAT

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AtPAT1 RDLRADLVSCAKAMSENDL--MMAHSMMEKLRQMVSVSGEPIQRLGAYLLEGLVAQLASSGSSIYKALNRCPEPAS-TELLSYMHILYEVCYPYFKFGYMSANGAIAEAMK
 AtSCL1 ATPKQILISCARALSEGKL--EELASMVNELRQIVSIQGDPSQRIAAVMVEGLAARMAASGKFIYRALK-CKEPPS-DERLAAMQVLFVFCPCFKFGFLAANGAILEAIK
 AtSCL5 GDLKGVLYECAKAVENYDL--EMTDWLISQLQQMVSVSGEPVQRLGAYMLEGLVARLASSGSSIYKALR-CKDPTG-PELLTYMHILYEACPYFKFGYMSANGAIAEAVK
 OsCIGR2 GNLKELLIACARAVEEKNS--FAIDMMIPELRKIVSVSGEPLERLGAYMVEGLVARLASSGSIYKALK-CKEPKS-SDLLSYMHFLYEACPYFKFGYMSANGAIAEAVK
 PtSCL7 SS-KQLLVQCATAISEGKE--EMASHIITKLRVSIQGDPMERLAAYMVEGLAARIASSGNGIYKALN-CKAPPS-TDTLSAMQILFEVCPYFKFGCMVANGAICEAFK
 PpSCL8 SSSRKLVECATAISEGDK--DSALSIKKNLMQVISVYGDPMQRLTAYMVEGLVARLGPASAQSLYNTLK-WKETPIKSDILSATRLLYKVCOPYMKFGCVAAISTILEALK
 PpSCL9 GDVKELLIAKAKAVSDSDNDSIKIDKLIAEIRQVVISGSDPMQRLGAYMVEGLVARMASGAIYKTLR-CKEPTS-PELLSYMQVLFVFCPYFKFGYMAANGAIAEAFK
 PrSCL10 GDVKSLLIECAKAIADGRN---ADNLIAGLRQVNIYGDPLHLRAAYMVEGLVARLHFSGGHIYKTLK-CKEPTS-SELLSYMHILYEVCYPYFKFGYVAANGAIAEAFK
 PtSCL20 GDIKCLLIECAKAIADNRN---ADKLI AELRQAVSIFGDPMQRLGAYMVEGLVARLQFSGGHIYKTLK-CKEPTS-AELLSYMQIFYKICPYFKFGYMSANAVIVEALN

VHIID

LHRII

AtPAT1 EENRVHIIDFQIGQGSQWVTLIQAFARPGGPPRIRITGIDDMTSAYARGGGLSIVGNRLAKLAKQFNVPFEFNSVSVSVSEVKPKNLGVPRGEALAVNFAFVLHHPDE
 AtSCL1 GEEEVHIIDFDINQGNQYMTLIRSI AELPGKRPRRLRTGIDDPESVQRSIGGLRIIGLRLEQLAEDNGVSFKFKAMPKSTSI VSPSTLGCKPGETLIVNFAFQLHHPDE
 AtSCL5 NESFVHIIDFQISQGGQWVSLRALGARPGGPPNVRITGIDDPRSSFARQGGLELVGQRLGKLAEMCGV PFEFHGAALCCTEVEIEKLGVRNGEALAVNFPVLHHPDE
 OsCIGR2 GEDRIHIIDFHISQGAQWISLLQALARPGGPPPTVRITGIDDSVSA YARGGGLELVGRRLSHIASLCKVPFEFHPLAISGSKVEAAHLGVI PGEALAVNFTLELHHIPDE
 PtSCL7 DEQKVHIIDFEIGQGSQYISLLKVL AERPGGPPHLRITAVDDSEDVRYIPGGLDNVGRKLEQYAESIGASLQFISIRRKVGDVQWML EINPDEVLAVNFAFQLHHPDE
 PpSCL8 EEEKVHIIDFEIGEGSQYFTLIDKLAARVGGPPKLRITAVDDPEPISRSVGDLYMLQEQLREIAVQRGVHLEFRIISQKAADVQPYMLDCR PGEALAVNFAFQLHHPDE
 PpSCL9 DEDRVHIIDFQIAQGSQWVTLIQAL AARFPGPPHVSITGIDDPVSNYARGGGLLVGKRLSKLAEICNV PFEFHPVPMGPDVQVNLKYQAGDALAVNFAFQLHHPDE
 PrSCL10 DKDRVHIIDFQIAQGSQWVTLIQAFARQGGSPHVRITGVDDPQSEYARGGGLNLVGRRLSKLAESYQV PFEFHGLSVFSGDVHAEMKIRPGEALAVNFPQLHHPDE
 PtSCL20 DKDRVHIIDFQIALGTQWVPVIQAFARQGGSPHVRITGVDDPVSEFARGQGLQMVGRRLSKLAETYQV PFEFHALPVYASDVHADMLDIRPGEALAVNFHLVHHPDE

PFYRE

AtPAT1 SVSTENHRDRLLRMVKSLSPKVVTLVEQESNTNTAAFFPRFMETMNYAAMFESIDVTLPRDHKQRINVEQHCLARDVNNIACEGADRVERHEL LGKWSRFRGMAGFTV
 AtSCL1 SVTTVNQRDELHLMVKS LNPKLVTVVEQDVNTNTSPFFPRFIEAYEYSAVFESLDMTLPRESQERMNVERQCLARDIVNIVACEGEERIEREYEAAGKWRARMMAGFNP
 AtSCL5 SVTVENHRDRLRLRVKHLSPNVVTLVEQEA NTNTAPFLPRFVETMNHYLAVFESIDVKLARDHKERINVEQHCLAREVNNIACEGVEREERHEPLGKWSRFRHMAGFKP
 OsCIGR2 SVSTANHRDRLLRMVKSLSPKVLTLVEMESNTNTAPFPORFAETLDYTAIFESIDLTLPRDDRERINMEQHCLAREIVNLIACEGGERAERYEPFGKWKARLT MAGFRP
 PtSCL7 SVSTKNLRDRLLRMVKSLNPKVVTVVEQEVNTNTAPFLPRFM EALNYSSVFESLDATIKRDSRDRMNVEKQCLARDIVNIIACEGEERIEREYEVAGKWRARMTMAGFSV
 PpSCL8 SVSTRNPRDQLLRMVKGLSPKVVTVVEREMNTNTAPFLPRFM EALNYSSVFESLDVSLKRESRERFNI EKQCLARDIVNIVACE DAERIEREYEVAGKWRARMTMAGFTV
 PpSCL9 SVNTSNHRDRIIRMAKGLAPKVLTLVEQESNTNTAPFFSRFME TSYTAIFESLDVTLTRESKERISVEQHCLARDIVNIIACEGAERIERHELMGKWSRFTMAGFKP
 PrSCL10 SVNTSNHRDRLLRMVKNFSPNVVTLVEQEA NTNTAPFFPRFMETLSYTTAMFESLDVTLPRDSKERVSVEQHCLARDIVNVIACEGDERVERHELFGKWSRSLTMAGFKS
 PtSCL20 SVSTNNHRDRLLRMVKGFAFSVVTLVEQEA NTNTAPFFPRFMETLSYTTAMFESLDLTLPRESKERVSVEQHCLARDIVNIIACEGAERVERHELFGKWSRSLTMAGFKS

SAW

AtPAT1 YPLSPLVNSTIKSLL-RNYS DKYRLEERD GALYLGWMHRDLVASC AWK-----
 AtSCL1 KPMSAKVTNNIQNLIKQCYCNKYK LKEEMGELHFCWEEKSLIVASAWR-----
 AtSCL5 YPLSSYVNATIKGLL-ESYSEKYTLEERD GALYLGWKNQPLITSCAWR-----
 OsCIGR2 SPLSSLVNATIRTLI-QSYS DNKYLAERD GALYLGWKSRLPVSSAWH-----
 PtSCL7 YPLSANVKD TVKSLHQSY CNSYKTKEEGGAMYFGWLDRLILIAASAWH-----
 PpSCL8 YPINTSVDNSIRPLF-ESRGNNYRLKAEKGALHLGWLDKVLVVVSAWHLESHSMIK
 PpSCL9 YPLSSIVNSTIKSLL-EGYCENYTLLEERD TLYLGLWLNRP LIAAAAFQ-----
 PrSCL10 YPLSAHVNSTIKVVL-NSYNNYRLIEKDEALYLGWLD RDLIVASAWK-----
 PtSCL20 HALSSRVNATIKVAL-ESYNQNYRVVEKDDVLYLGLWGRDLYVSSAWK

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LsLS PAIQIRQLLISCAELLSQSDFSAAKR-LLTILSTNSSPFGDSTERLVHQFTRALSRLRNRYISSTTNHFMPVETTPTDSSSSSSSLALIQSSYLSLNQVT
 AtSCL4 LEPLPKAIYDCARISDSDPNEASKT--LLQIRESVSELGDPTERVAFYFTEALSNRLSP---NSPATSSS---SSSTEDLILS-----YKTLNDAC
 OsMOCI AAPSTRDLLACADLLQRGDLPAARRAAEIVLAAAASPRGDAADRILAYHFARALALRVV---AKAGHGHVVVGGGAARPASSG-----AYLAFNQIA
 PrSCL2 QRSDLLHSLLDCAKIVDTEPERAGQS--VAYLQRIASHHGDPTRQRIASHFADALAKRLSKGIEQKPFQSSDECSKSFEDLTLA-----YKALNDAC
 PtSCL17 SAAHLRNLLTECAEFVAQCEW-QRADRMISILSTRGSPRGDSTERLVAQFTRALRHRSDLALARRPPPDGATERELES-----AYLCLNQVT

VHIID LHRII

LsLS PFIRFTQLTANQAILEAINGNHQAIHIVDFDINHGVQWPPMLQALADRYP---APTLRITGTGN-----DLDTLRRTGDRLLAKFAHSLGLRFQHFHFLY
 AtSCL4 PYSKFAHLTANQAILEATEK-SNKIHIIVDFGIVQGIQWPALLQALATRTSGK--PTQIRVSGIPAPSLGESPEPSLIATGNRLRDFAKVLDLNFDFIPIL
 OsMOCI PFLRFAHLTANQAILEAVDG-ARRVHILDLDVAVHGQWPPLLQAIERADPALGPEPVRVTGAGA-----DRDTLLRTGNRLRAFARSIHLPFHFTPLL
 PrSCL2 PYSKFAQLTGNQAILEAMDK-AEKIHIIVDFGIVQGVQWAALLHAFATRPGGK--PHKIKITGIPAPTLGQNPTSSLLATGKRLTEFAKLLDLEFEFCFVS
 PtSCL17 PFIRFAHLTANQAILETLDTDSPSIHVVDINIMQGVQWPPFMQALAEPRGGP--PSHIRLTGAGA-----DAEALRKTGRRLERFAHTLGLRFEFNPI

PFYRE

LsLS IANNNHDDH-----EDPSIISSIVLLPDETLAINCVFYLRHLLKD-REKLRIFLHRVKSMNPKIIVTIAEKEAN-----HNHPLFLQRFIEA
 AtSCL4 TPIH-----LLNGSSFRVDPDEVLAVNFMLQLYKLLDEPTIVDTALRLAKSLNPRVVTLGEYEVS-----LNRVGFANRVKNA
 OsMOCI LSCATTAPHHVAGTSTGAAAAASTAAAATGLEFHPDETLAVNCVMFLHNLG--HDELA AFLKWKVAMSPAVVTIAEREAGGGGGGDHIDDLP RVGVA
 PrSCL2 KHMS-----EVELSTLKIEQDECI AVNFMLQLYNLLGDSPEPLVKIILKLAHALSPKVVTLGEYEAH-----LNACQFQVRFNA
 PtSCL17 VDDDI-----SSLAISIRPGE SLAINCVLHLLHELLDEAHNERLKNFLVRIRSLPEKVVALAEREAD-----HNRPTFTDRFVEA

SAW

LsLS LDYYTAVFDSLEATLPPGSRERMTVEQVWFGREIVDI VAMEG-DKRKERHERFRSWEVMLRSCGF SNVALSPFALSQA KLLLRLHYPSEGYQLGVS-SNS
 AtSCL4 LQFYSAVFESLEPNLGRDSEERVRVERELFGRRISGLIGPEKTGIHRERMEEKEQWRVLMENAGFESVKLSNYAVSQA KILLWNYNYSNLYSIVESKPGF
 OsMOCI MDHYSAVFEALEATVPPGSRERLAVEQEVLGREIEAAVGPSC-GRWWRGIER---WGGAARAAGFAARPLSAFAVSQA RLLLRLHYPSEGYLVQEA-RGA
 PrSCL2 LEYFSAFFESMEPNMARDSAERLNVEKHFFAEKIMGIVAFEG-AERKIRLEGRDQWRIVMESAGFKFTNL SHYARSQA RILLYNY--CEAYSLDES-SGF
 PtSCL17 LNHYSILFDSLEATLPPKSRERLDEQVWFGREITNIVALEG-HGRNERHQKFERWSELMNECGFTSLPLSEFALSQA RLLLRLHYPSEGYQLHT-QNKA

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LsLS FFLGWQNP LFSISSWR----

AtSCL4 ISLAWNDLPLLTLSSWR----

OsMOCI CFLGWQTRPLLSVSAWQPSSS

PrSCL2 LSLAWQNRPLLTVSAWCC--

PtSCL17 AFLGWQNSPLFSVSSWH----

AtSCL26

LHRI

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AtSCL26 GLRLVHLLVAADASTGANKSRELTRVILARLKDVLSPGDRTNMERLAAHFTNGLSK-----
PtSCL11 QQDLLQIILVKCAEALSEG--HHGLVRSVMVSKLQEFSSPLG-DPLQRI SFYVSEVLKN-----
PtSCL16 GLRLIHLLTACAEAMLEG--AQDLVEVILCRLRQLVVSCTG-STMERVGYLFDALLH-----
PtSCL19 GLRLHLLTACAEAKSLG--AQDLVEVILCRLRGLVVSPTG-FTMERVAYYVFDALLH-----
PtSCL22 GLRLVHLLTACAEAMSQE--AQDVVEVILCRLRDLVVSPTG-SSMERVAYYLYHAL-----
PtSCL23 GLRLHLLTACAEAISEG--TQDLAEVILCRLRGLVVSPTG-STMERVAYYLFNALVCS-----
PtSCL24 GLRLIHLLTACAEAMSEG--AQDLVEVILCRLRQLVVSCTG-STMERVAYYLFDALLH-----
PtSCL25 GLRLVHLLTACAEALSQG--AEDVVEVILCRLRELVS LTG-STMERVAYYLYHALH-SNVNSLVHNMEPNDKSSKYHFLGALKLLHVAYPIQIPHFTANQCILEAVAAA
PtSCL26 GLRLHLLTACAEAMSQG--AQDLVEVILCRLQGLVVSPTG-STMERVAYYLYHAL-----
PtSCL27 GLRLHLLTACAEALMSEG--AEDLVEVILCRLRGLVVSSTG-STMERVAYYLYRALLH-----
PtSCL28 GLRLHLLTACAEAMCEG--AQDLVDVILWRLRGLVVSSTG-TMERVAYYLYRALLH-----
PtSCL29 GLRLHLLTACAEAMSHG--AQDLVEVILCRLRQLVVSSTG-STMERVAYYLLDALLHY-----
PtSCL30 GLRLHLLTACVEAMSEG--AEDLVEVILCRLRQLVVSCTG-STMERVAYYLFDALLH-----

VHIID

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AtSCL26 -----LLERDSVLCPOQHRDD---VYDQADVISAPELLQNMSF-YVNFGYLTATQATLEAVKYER-----RTHIVDYDINEGVQWASLMQALVSR
PtSCL11 -----HSFVNVQEEENDEE-----SSLEYDLAYQAFYQLLP-YHKFLHFTSNQAIQEAVDNASN-----ITHIIDLEIRQGLQWPSFIQSLAHR
PtSCL16 -----SNVNSLAH-LLELNDK-----TTKEHFLGALKLLHAAYP-YIRIPHFTANECILEAVVAVGGGNN-VGIHIIDFDIMEGMQWPPLMETLRNK
PtSCL19 -----SNVNSLPH-LLELNDK-----ISKDHFLGALKLLHVAYP-YIRIPHFTANQCILEAVAG--AANN-VGIHIVDFDVMQWPPPLMEALRNS
PtSCL22 -----ALLHSKVNSLAH-LLEPNDN-----SSKDHFLGALKLLHVYYP-YIQIPQFTAYQCILEAVAAGGSGNN-VGIHIIDFDIMEGMQWPPLMETLRNN
PtSCL23 -----NNINSLGH-LLEPNDKSMSTSSAKEHFLGALKLLHVAYP-YIRIGHFTANQCILEAVAGTGSTN--VGIHIIDFDIMEGMQWPPLMEALRSN
PtSCL24 -----SNVNSLPH-LLELSDK-----TAKEHFLGALKLLHVAYPY-YIRIPQFTANECILEAVVAAGGVNN-VGIHIIDFDIMEGMQWPPLMEELRNN
PtSCL25 GGGSTMERVAYYLYHALLHSNVNSLVHNMEPNDK---SSKYHFLGALKLLHVAYP-YIQIPHFTANQCILEAVAAAGGNN-VGIHIIDFDIMEGMQWPPLMETLRNN
PtSCL26 -----LQSNGLAH-LLELNDK-----SSKEDFLVALKLLHVAYP-YIQIPHFTANQCILEAVAAAGSDKN-VGIHVIDFDIMECMQWPPLMEALKSN
PtSCL27 -----FNVDLSLAHLMPEPNDK-----SSNDNFLGALQLLHVAYP-YVRIPHFTANQCILEAVAGAGCTNNNVRTHIIDFDIMEGMQWPPLMESLKN-
PtSCL28 -----SNADSFALHMEPTDE-----SSNDSFLGALQLLHVAYP-YVRIPHFTANQCILEAVAGAGGINNNVRTHIIDFDIMEGMQWPPLMESLKN-
PtSCL29 -----SNVNINSLAH-LLELDDK-----TGKEHFLGALKLLHVAYP-YIRIPHFTANECILEAVVAAGGNN-VGIHIIDLFDIMEGMQWPPLMEALRNN
PtSCL30 -----SNVNIDSLTH-LLELDDK-----TGKEHFLGALKLLHVAYP-YIRIPHFTANECILEAVVAAGGNN-VGIHIIDFDIMEGMQWPPLMEALRNN

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AtSCL26 NTGPSAQHLRITALSRATNGKKSVAAVQ---ETGRRLTAFADSIGQPFYSYQCKLDTNAFSTSSLKLVRGEAVVINCMLHLPRFS-HQTPSSVISFLSEAKTLNPKLVT
PtSCL11 PG-GPPKLLKITAIGQDEKR-----LQOTGRRLLEFAESMETAFAFHPVVVDLENLDESALNIEAHETIIVNCVSVLHRLICKSGK--IHGLLALLRKLNPVAVLT
PtSCL16 ---DVRHLRITTIKWADDEEDEFRLYS---GHTGRWLSEYAAASAGIPFWEY--KMDLKGVD--ILPSQEGEIVVNCMWQLPHMLNLRNKSHLLEFLVGAHLLNPVAVT
PtSCL19 GKNYDVSHLRITAIKWTEDEDDGCLLYS---GHTGRRLSAYASSVGI PFSFQ--EINLKALKE--VVPQETEIVIVNCIWQLPHMLNLRNKSQLLEFLVGSRRLLNPKAVT
PtSCL22 G---VGYLRITAIKWDEDE-EECVVYSG---RHTGRRLSEYASSVGI PFSFE--ETDLKGLKEGLLPSREGEIVIVNCIWQLPHMVNLRNKSELMFLVGARHLNPEAVT
PtSCL23 GD-YEIDLRLITTVKWVDDDDDAVLYTECKHTGRRLSEYAESLGIPFLFQ--ETDLKGLK--LMSDEGEIVIVNCMWQLPHMVNLRNKSQLLEFLVGARHLNPEAVT
PtSCL24 ---YDVRHLRITAIKWADDEEDEFRLYS---GHTGRRLSEYATSAGIPFSYQ--ETDLNDMKD--ILPSEEGEIVVNCMWQLPHMLNLRNKSHLLEFLVSTRHLNPEAVT
PtSCL25 GN-YDVAHLRITAIRWAEDN-EEWLLYSG---HTGRRLSEYASSVGLPFSFQ--EADLKEKELKEGLLPSREGEIVMVNCIWQLPHMVNLRNKSEVMEFLVSVRHLNPEAVT
PtSCL26 GN-YDVGRRLRITAIRWAQD-GECPYLSG---HTGRRLSEYASSVGI PFSFQ--ETDLKGLKE--VLSHEGEIVIVNCMWQLPHMFLNLRNKSQLLEFLVSRHLNPKAVT
PtSCL27 ---IDVAHLKITAIKWADEE-DECVLYS---GNTGRRLSEYASSAGIPFSYQ--ETDLEGLK--ILPSEEGEIIVVNCMWQLPHMLNLRNKSHLVQLFLVGARLLNPVAVT
PtSCL28 ---IDVAHLTITAIKWAEEDEECVLYS---GHTGRRLSEYASSAGIPFSYQ--ETDLEGLK--IPLSEEGEIVVNCMWQLPHMLTLRNLKSHLLQFLVGARCLNPVAVT
PtSCL29 ---DDVPHLRITAIKWPDDEEDQCLHYS--AHTGRRLSEYATSAGIPFSYQ--ETDLKGLND--ILPSHEREIVVNCMWQLPHMLNLRNKSHLFEFLVGSRRHLNPAVVS
PtSCL30 ---DDVPHLRITAIKWPDDEEDQCLHYS--AHTGRRLSEYATSAGIPFSYQ--ERDLKGVKD--ILSSQEGEIVVNCMWQLPHMLNLRNKSHLFEFLVSTRHLNPEAVT

(AtSCL26 cont.)

PFYRE

SAW

AtSCL26 LVHEEVG--LMGNQGFLYRFMDLHQSALFDSLEAGLS-IANPARGFVERVFIGPWWANWLTRITA---NDAEVESFASWPQWLETNGFKPLEVSTNRCQAKLLLSLF
PtSCL11 VMEIECN---QSMPTVGRFLQCLIFHRAVFNSEIAIVE-KNNPDRVLIERVYVAPNISNVLVHDKE---NSGMYACIDSWRKFLRHSGFKDPSLSNYSKCQANLLIGMY
PtSCL16 LATGPHG-TESDSANFVDSLVRNLKELCAIFDSLEAGLP-EHGLARTMVERIFFGPAMSKRMSSAR-GDDRPADTTNSNVVDLPLRCGYEECNISNDNMIYAKYNVLMC
PtSCL19 LATGPHG-AESGAADFNDFTRRRLWELCTIFDSLEAGLP-EHGLARAMVERIFFGPAMSRRTVSGTACGDHGAADTTKSNVVDLPIKCRYGEGSISSTIMYAKGTLCS
PtSCL22 LATGAHG-AEGNMSNFLDSFSRCLEELCTIFDSLEAGLP-QHGLARAMVERFFFPGAMAKRIVSS---SACGPPDTRKSNVVDLPLECGYEGSISNDNMIYAKYTLQSG
PtSCL23 VVTGPHGNDIAERGFIESFAGCLKDLCTIFDSLEAGLP-EHGLARAMVERMFFGPAMSRRLMKS-----PENGEENVVDIAVKCGYEGGTITSENVMYAKYTLELC
PtSCL24 LATGPHG-IESETANFLESFARRLEELCAIFDSLEAGLP-EHGLARAMVERIFFGAAMSKRMSSAR-GDDRVADTTNSNVVDLPLRCGYEEGSI SNDNMINAKCNLLWN
PtSCL25 VATGPHG-SEGNMSNFLESFCRCLEELCAIFDSLEAGLP-QHGLARAMVERFFFPGAMAKRIVNS---IECDPPDTRKSNVLDLPLECGYGEVSI SNDNMIYAKYTLHNC
PtSCL26 LATGPHG-AERNRANFVESFCRCQLDLCAIFDSLEAGLP-HHGLARAMVERFFFGHAMAKTIVSS---SACGPPDNRKSNVVDLPLDCSY SAGSISKENMIYAKYTLQSV
PtSCL27 LATGPHG-TESENTANFLESFVRRLEELCAIFDSVEAGLP-EHGLASAMVERFFFGPAMSKRMSSVR-GHDSPADTDSNVADLPLKCGYGGQGISNENMIYAKYSLPCS
PtSCL28 LATGPHG-TESGTANFLESFVRRLEELCAIFDSVEAGLP-EHGLASAMVERFFFGPAMSKRVLS-----ASSDSDSRDSNVVDLPLFCGYGEGSISNENMIYAKYSLPCS
PtSCL29 IATGPHG-TENESGNFVESFARRLEELCAIFDSLEAGLP-EHGLARAMVERIFFGAAMSKRVISSAR-GDDRPVDATNSNVVDLPLRCGYEECSVSNENMIYAKSSVLMC
PtSCL30 LATGPHG-IESETANFLESFARRLEELCAIFDSLEAGLP-EHGLARAMVERIFFGPAMSKRMSSVR-GDDSLADIRD SNVVDLPLRCGYEECSISNDNMIYAKCNVLC

AtSCL26 N-----DGFRVEELGQNGLVLGWKSRRLVSAFWSAQTNQ-----
PtSCL11 PN-----DSFKLHQDG-VSITLAWQDTPIVSVSVWTC-----
PtSCL16 ---SVSGCYELEVELVGEHRLVVKSGCTPLVWVSTWKSPQL SEFDSLNFLEKN-----
PtSCL19 ----GGNASYELEVELVGRHRLVVKWASTPLVWISTWKSVPN-----
PtSCL22 VT-----GYELEVELVGDHRRVVLKVGCTPLVWVSTWKTTR-----
PtSCL23 K---GSGRCYEVALVGRNRLVVKWASTPLVWVSTWKS-----
PtSCL24 ---GSSG-CYGVELAGHRRVVLRWGSTPLVWVSTWKS-----SGIVRQGVPG-----
PtSCL25 VGR----GSYDVELAGDHRLVVKWCTPLVWVSTWTTWK-----
PtSCL26 GR----GSYEVEVMVDHRLVMKWGCAPLVWVSTWKS-----
PtSCL27 ----GGRGCYEIEMVGDHRLVVKWGSTPLVWCGYSGWGISNENMIYAKYSLPCSGRRGCYEIEM
PtSCL28 -----GSYEVEKLGDNRVVLKVGSTPLVWVSTWKS PSSHHDLTNQHWNDTDFILG-----
PtSCL29 SG-SGSGGCYELEVELVGHRLVVKWCTPLVWVSTWKT PSSSCGYPIHVTN-----
PtSCL30 ----GSSGCYEVEVMVGHRRVVLRWGSTPLVCSAWKSPSSSCISNRR-----