

At3g48510.1 DIG1
At3g27250.1 DIL4
At5g40790.1 DIL2
At5g40800.1 DIL3
At5g50360.1 DIG2
At5g63350.1 DIL1
Solyc03g111100.1
Solyc02g093890.1
Solyc02g068030.1
GLYMA19G22560.1
GLYMA17G13720.1
GLYMA06G18060.1
GLYMA05G06810.1
GLYMA05G03080.1
GLYMA04G36920.1
Osl2g0242500-01
GRMZ2G084005_P01
At1g27461.1
Os07g0585700-01 Sdr4
GRMZ2G396402_P01
GRMZ2G105302_P01

MDG-RGGCCI-ARYA-----IGSGPYDLSKADRIMLRFPRIAPKPAASPGGVNPSVSSGSDG-----GGSSDVSFRSAS-RRKRKCHQLKENG-----N-----
MD--QDDWLGLTLRYA-----GKAQDKVSDALMLRFRPIAPKPTTQPCGVADNNMNS-----SYGMSK--RTRKRYVVRVSKNN-----
MHG-NKQCCQ-ASIC-----DGATDQDRVTYVSIKMQRRFRPIAPKFAVGGSSDDTNSDRFL-----GNR--RSKRKYVRVDKNN-----S-----
MQDDHELWRT-LRCA-----GKAQDKTSVDTMLMKYRPIAPKPTTTGQPLVGDTSSTR-----VITNVSRSR--RGRKRYSKENSSSTGSGVN-----S-----
MNF-RGGCCI-ARYG-----GSGGNDMSKVRDMLRFRPIAPKPDSDGSPASPTEKNGS-----VITNVSRSR--RGRKRYSKENSSSTGSGVN-----S-----
MDG-RGGCCI-ARYG-----GYGGRYGLSKADRIMLRFRPIAPKPAASDGGVSVLTKGSGS-TTTTSGGSSDLSGKSG--RGRKRYQKDCSGGN-----S-----
MDG-RGGCCI-ARYA-----GGAYDMSKVRDMLRFRPIAPKPAAGTSSVSTGTPPQ-----KSEVPVTRG--RWKRYVVDKNNNSN-----N-----
MDL-ANTWAG-PGYT-----PTPKDITLINQMMLRFRPIAPKPVNDSGPPETHVVAN-----RRTRKRYVVRK-----
MDG-GNGFPA-ARYA-----GKNDTITMNRIMLRFRPIAPKPVAGSSDGTSPENN-----MELVTKR--RAKRYVVRKSSK-----C-----
MDS-ADAWR-AAAC-----NSNVNIMLRFRPIAPKPVGTISAAEAGSAVGE-----VTQNHVSVLKG--RPRKRYVVRIRNSG-----Y-----
MDG-RGGCCI-ARYV-----PGASHGTSVKDMLRFRPIAPKPAAGTSSVSTGTPPQ-----DAFLKNG--TTRKRYVVRDNYTS-----Y-----
MSS-YKFTPL-PSLL-----LQPPSTRAAYNMLRFRPIAPKPLPSAALSDDSSFSSEN-----TG--VSKRMDTSGKSCS-----
MDG-ADAWR-AAAC-----NTNVNIMLRFRPIAPKPVAGSSAVSRATGAGD-----GSQSSHVSVLKG--RPRKRYVVRIRNSG-----Y-----
MDL-RGGCCI-ARYV-----PGASHVTSVKDMLRFRPIAPKPAAGTSSVSTGTPPQ-----DAFLRNG--NTRKRYVVRDNYTS-----K-----
-----MSKMDKIMLRFRPIAPKPLPAAAAALSDDSSSE-----STG--SAKRKNDTAKRCS-----
MER-KGGCCLAPRYAASAAAAAGAGGQAAMWQMRIMLRFRPIAPKPAAPAPAVGAGVAGK-----GKRKAVSGGGGRRGRKPKKAATAATLAPAHAPAPAPVAGTKPVKLVG
MER-KGGCCLAPRYA-----ATAAAQGAAGWQMRIMLRFRPIAPKPAAPAPASAPVTSAGAGRGRKKAACGGGRRGRKPKKAAKVAMVTAAPATAAAQDVGDG
-----MIKILNPHSH-----HSQTTTLKTAELISKYRPIAPKPTPRVNDPSSSS-----HKISQSPYLRLNLWQLQARPTTRKRGRGMMGPSSLAMKR-----P-----
-----MAMV-----QPVDMAVKANEIMLRFRPIAPKPVLPAAAAAGVTGGGDD-----AAVAATNRVLCQLQSRPRARKRGRPSVPPSPAGA--K-----
-----MAMV-----QPADTAVKANEILLARFRPIAPKPLAAAAAAAAPVQA-----AAEGVVAANRVLCHLQSRPRARKRGRPTVVPVPSKSGAQ--P-----
-----MAMV-----QPADTAVKANEILLARFRPIAPKPLAAEGVVAANRVL-----HLQGRPCRARKRGRPGFVAVPSPESGLQ--P-----

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-----AKRCTRRTSKDKPVVH-----GSAN-----AVTLS-LL-PEKPIDLKAAVE-----KQKRQGP-----LWLSF
-----KTCRCRKSRLSDDR-----EQTD-----VITLQ-LL-PEKSDISEYSPLDQDLSLPS-----VKSIIEETQETNTWGMF
-----SGSNKKDITGKNGK-----DRGNIKTDLKIDGDDRTD-----VITLQ-LL-PEKDRDIGNGDKAGEFCS-----DLSMDP
-----KATCRSKTNGFRSSST-----DPENGRED-----IVTLQ-LL-PERSTPLSLDHNLDPT-----VETTINGDETCNTDWTWLF
-----NGNSKQRNDERTKNGS-----GGGRE-----IVTLQ-LL-PETPEKDKSP-----LKAKAPELGAALWLSF
-----RRCNKKRDLSDGTAT-----TT-----AVTLS-LL-PETPEKRVFPDLNAPVVE-----KQKNGP-----LWLSF
-----NKRSSSGCCSPTPSRR-----KRRKARSVEENDSASAKVSGGETAVTLQ-LL-SEIPEKRDNSVD-----MMKNAP-----IWLFS
-----KKNKNSKKEKSDGLLDE-----VITLQ-LL-PESSGGVKTSPEDR-----SYPTIN-----FLVQL
-----KSNKEDEANKDGSLLY-----EDNGA-----GITLQ-LM-PQSSSGVRSNL-----ENSGRSP-----FMMNF
-----VRKNNGDSNGKSNNG-----NDESSDVA-----VITLQ-LM-PEKDAPEGDVTLAGDSWCKNVLDLVEKIQI-----VENRSAP
-----KRRIRRRKNTSSPEKK-----QP-----VITLQ-LL-PETPDRKRSKADLTPSPAKPVNRNNNNNNKSNLNIINKNVP-----VWVSF
-----RGIRRRRNAPPPIPPP-----PP-----AVTLP-LL-PETPDKKTTSE-----LKNKNVP-----VWLSF
-----VRKNNGNSNRKSNKNC-----NDESSDVA-----VITLQ-LM-PEKDAPEGDVTLAGDSWCKNVLDLVEKIQI-----VENRSAP
-----RRCRKNSSNSPEQK-----QKQTT-----AVTLP-LL-PETPDRKDFPAKDLTPSPVNRN-----LKNKNVP-----VWVSF
-----RGIRRRRNAPPPIPPP-----AVTLP-LL-PGSPGPKITSE-----LKNKNVP-----VWLSF
DCKEMEREKEKESLSSPSSS-----SSGMSVSSPPPPP-----SAMPL-LL-PVRLDITTT-----TPPVAP
-----REHCDKESKSSSPSSS-----SSGTSVSDSPPRPQQRQ-----LATLP-LM-PVTAEDKAAA-----CPATVGP
-----KSSCGSSSTISTQRLVLPKIKTSLFQAFTHHRLNLPQVGVFVGVSSSTLVTLP-LL-QCSPSSKCMPEIKRQVI-----DLNKTAEVIQERDITLQ
-----RKRAPAYVAPLRC-----AAVATARTARVSVVVVPAFAGVSA-LA-----VPSPSAGDSTRLSPTVVEVEDE-----DEERGVP
-----PAKRRASTPYPLRC-----AAATTAHVV-----SAVVGSA-----RLPASPAGVEDIAKAAAAAAT-----EERDVP
-----PAKRRATTPYPLRC-----TGPRASAVPG-----SAGLP-LASASLPAGAGAAEDLAKVA-----AERHVP

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-----KDGGMGLTPAYQTEIYQRTVVISS-----CMTVERVT-----D-AWI-----DG-YG-----LGRSD-----EERKMNVLDTCPGFLISSSGFWTNDAYRKMA--RDIIP
-----NGSVTAE-----MET-----WTVVESVT-----S-VEGSLSS-HA-----VGITD-----VEIVDNLGHCDFAPVSSGSRNWWNEAYRRNV-----SGD
-----KKSLYNSIIGLSSS-----FDRVYVES-----WLTVECVS-----D-TCT--DLGWYHILEQLGRMDQAEERVMRMLVEDCPWLVSSGSRNWWNEAYRRNV-----GAP
-----NGDDALQ-----QVPVET-----WTVVESVN-----SGLVS-----HA-----VGLTD-----EELTYALDHCDFAPVSSGSRNWWNEAYRRNV-----TGD
-----NDGASYNRRYQTELMET-----VWSS-----LTVVECVT-----E-RLM-----EGEYE-----LGCTD-----EERKMNVLDTCPGFLISGLGRWNTNAYRRNV-----VCK
-----NGGEEILTPYKTAESIIRTSVWVSS-----CVTVERVT-----D-AWI-----DG-YG-----LGETN-----QERKMNVLDTCPGFLISGLGRWNTNAYRRNV-----VGP
GNQGNNNNSNNNNQLQGVAMDR-SVVMFPQVRRVWGS-----WVWVDSVT-----D-AWV-----EG-YG-----LGRSD-----EELINLEPDCDFAPVSSGSRNWWNEAYRRNV-----DP
-----DRSIWINKNLLSIGAP-----DPSVEIRSPMVWES-----WVVDGLT-----NTTFV-----DL-SA-----LGSTD-----MEKMMNLQRCDFAPVSSGSRNWWNEAYRRNV-----DP
-----QKSENSEIFPVGSDQIDRTVEMQKRVVES-----WVMDQIT-----N-ALV-----DG-EA-----LGSTD-----TEKMNLEPDCDFAPVSSGSRNWWNEAYRRNV-----DPL
-----PRAAAEEGEGKRSDLVAAKVAES-----WTVVESVT-----G-TCMGEGDG-EGGRGLDCTD-----AEKVSLEADCPDFAPVSSGSRNWWNEAYRRNV-----LEGR
-----ENRSLTMMGG-----WCS-----CVTVEGVT-----D-TCL--ES-EW-----LGSTD-----EERLNLSDTCPGFLISGLGRWNTNAYRRNV-----GAP
-----ENSFNKRGGTASEKDLVPCWYSPA-----AGS-----VTVVECVM-----D-RMQPQEEG-LG-----LGRGD-----VERKVLDTCPGFLISGLGRWNTNAYRRNV-----LEGR
-----PRLVVEEGEGAGKDLVPAKAAES-----WTVVESVT-----G-TCMGEGEGGR-----LLSCTD-----EERKVSLEADCPDFAPVSSGSRNWWNEAYRRNV-----LEGR
-----ANRSLTMMGG-----WCS-----CVTVEGVT-----D-TWV-----EG-EW-----LGSTD-----EERKVNLSHTCPGFLISGLGRWNTNAYRRNV-----EGD
-----ENNFNRRGAASEKLDPCWYSQATAAGS-----VTVVECVM-----D-TWQOQDEG-LG-----LGSDD-----EERKVKLEDTCPGFLISGLGRWNTNAYRRNV-----LEGR
-----AHAQAQSVVAPPFRALLPAAA-----VTVVECVT-----S-WVR-----DGSG-----AARAGD-DGCAAPVSSGSRNWWNEAYRRNV-----AP
-----ELVPSQVTAARPLAPRMRPAAAAAYLVVEEVT-----A-TWR-----DG-----EPASATGHEEAPVSSGSRNWWNEAYRRNV-----SAD
-----QGPIITTTTATTSRVSIPQPIRVPVCS-----KINVAYIN-----PLTNPSPTSQT-----SKKSP-----REVEEDVESDLPVSSGSRNWWNEAYRRNV-----GQP
-----LVERDLLRKLLEP-----RVLLEPFRVPRVGS-----THVSVHIDVGRITA-----AAAA-----APKTA-----EVEAELESLSLPAVSSGSRNWWNEAYRRNV-----GQP
-----VERDLLRKLLEP-----RVSIFRAVPRVMS-----AIHVGCIRHTDDAACT-----DAA-----VSKTA-----VQVEAELEVALPAVSSGSRNWWNEAYRRNV-----GQP
-----VERDLLRKLLEP-----KVISFRAVPRVCS-----AIHVGCIRHADA-TCA-----AA-----VSKTA-----VRVEAELEVALPAVSSGSRNWWNEAYRRNV-----GQP

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VEEGAPEITSDSFHVI--VRLVMRER-----PMLTS-----PGTFRMK-LQYTCQNRBERGSVTVBCDWRMDVGGG-----FAWRL-----DVKAALCL-----
DSTAS-----VSEPVV--VNLVAEEATAA-----MHCNY-----QAFTRVR-MQYTW-KETKYTKTVECDWVKME-FGG-----FAWRL-----DITAALTLWL-----
DVDVI-----R--VNLVVAMDLMEEIACMVLEL-----YGAVTNRV-VRVYEP--STWRKMTVPCDWRIR-SCG-----FAWRL-----DVESALRLGM-----
GGFGR-----EVI--VNLVVDQTA-----TFCDY-----RTFTNRV-MEYTW-RETQYTKTVECDWVKME-FGG-----FAWRL-----DITAALTLWL-----
DHEQC-----SKMS--VNLVMKEK-----PLVTY-----RTFTNRV-LQYTCRDEKVESSITSECDWRMS-DGG-----FAWRL-----DVDALCLR-----
MEEGVPEDISYDNFHVN--VRLVMKER-----PMLTY-----PAFTNRV-LQYTCQDRERGSVTVBCDWRMD-GGG-----FAWRL-----DVKAALCL-----
-GDGA-----GEVV--VNLVMKDA-----VRLPESKSTAFTNRVVR--C-GKEKNSLILBCDWRMD-GGG-----FAWRL-----DTEAALLSLGR-----
EEEGG-----EATEMV--VRLVVKEDKRAPVLLLSLPS-----FACIVR-IVYTW-NKVKQSRTPMCDWVKMD-CGG-----FAWKF-----DAKAALLSLGR-----
EGSN-----SPELV--TWLVVKEK-----ILLPN-----SSAFIVR-ILYT-----KNSQTMPCDWRKME-FGG-----FAWRL-----DAKAALLSLGR-----
EGEGE-----NIV--VNLVKVDSA-----TASWVCYSHPAFTNRV-LQYTW-RNEKCTKMBVCDWRDL-CGG-----FAWRL-----DVKAALLSLGL-----
EQGPF-----VLLVNKVN-----IASWV-----ASFTLVRVQYVQSC-GKERNLTVBCDWRMD-CGG-----FAWRL-----DVKAALLSLGLY-----
-GEGC-----VNLAMKVT-----VPLCY-----RGETNRV-VQYAC-KRER-----TVPCDWRM-SGG-----FAWRL-----DVKAALLSLSLAL-----
KGECE-----DIM--VNLVKVDSA-----CAAWCYSHPAFTNRV-LQYTW-RNEKCTKMBVCDWRDL-CGG-----FAWRL-----DVKAALLSLGL-----
EQGPF-----VLLVNKVN-----TVVPH-----ASFTLVRVQYVQAC-GRESSLTVBCDWRMD-SGG-----FAWRL-----DVEALSRLGLY-----
-GAGG-----VNLAMKVA-----VVPYV-----RGETNRV-VRVYAC-GIER-----TVBCDWRMD-SGG-----FAWRL-----DVKAALLSLSLAF-----
DAAAP-----DQAR--VALAARDGDA-----AAVPAWGTCAAGTNRV-VHPSYSPRRSSVVAACDWRDL-AGG-----CYLWRL-----DLQAALLSLGALP-----
GDGEA-----DAAAP-----GALPWAAGTCAAGTNRVRAHWSA-RRVGSVVAACDWRDLAAGS-----YLWRL-----DLQAALLSLGCL-----
ECSWL--DSMVRGRKIC--GEVMINFC-----SKIPVMTENNCSVNR-IDWGR-DGKEEYMHACDVTKLA-CDSDYVFTWRF-----HTTDRR-----
ECPWLDAVATAASRRISGEVALVSEVAAA--AALPE--TKGFSIAK-IAWER-DGKNSVHABCDVTRLD-CESRDYFAWRF-----RAAGDECNTHRAAGDA-
GRMZ2G396402_P01 ECPWL-DAVATAASRRISGEVALVADR-----SSLPE--SYGAFPTAK-IWED-DGKVASIDVBCDWRDL-CESRDYFAWRFRTAADADASVGSSEISES
GRMZ2G105302_P01 ECPWL-DAVATAASRRISGEVALVANO-----SSLPE--SYGAFPTAK-IWED-DGKVASIDVBCDWRDL-CESRDYFAWRFRTAADADASVGSSEISES