

DMR6

B.distachyon_Bradi5g19240

O.sativa_Os04g49194

O.sativa_Os10g39140

S.bicolor_Sb01g030560

ZmFNSI-1/ZmDMR6

B.distachyon_Bradi1g77040

O.sativa_Os03g03034

S.italica_Si036512m.g

S.bicolor_Sb01g049030

Z.mays_GRMZM2G475380

A.coerulea_v1.008143m.g

E.salsugineum_TP2g22820

C.rubella_006g21660

AtDMR6

AlDMR6

C.sativus_Cucsa.273300

SlDMR6

M.guttatus_mgv1a009622m.g

VvDMR6.1

C.papaya_16416436

VvDMR6.2

R.communis_29866.t000021

M.truncatula_Medtr3g122530

G.max_Glyma04g227900

G.max_Glyma06g137000

G.max_Glyma06g14190

E.grandis_v1_0.018520m.g

E.grandis_v1_0.018494m.g

E.grandis_v1_0.018496m.g

P.persica_ppa008269m.g

C.clementina_0.9_015118m.g

P.persica_ppa022381m.g

P.persica_ppa019415m.g

C.clementina_0.9_032642m.g

C.clementina_0.9_012078m.g

DLO

B.distachyon_Bradi5g19250

O.sativa_Os04g49210

S.italica_Si010491m.g

-----MANQLLST---VSCHDTLPEGYARPESDRPRLAE 31
-----MATTQLLST---VEHRETLPEGYARPESDRPRLAE 32
-----MAAEAEQQHQQLLST---AVHDHTMPGKYVRPESQRPRLDL 36
-----MAEQQLLST---AVHDTLPGSYVRPESQRPRLAE 30
-----MAEHILLST---AVHDTLPGSYVRPEPERPRLAE 30
-----MAEQLIST---CAHETLPESYVRDAAERPRLDE 30
-----MADQLIST---ADHDTLPGNYVRPEAQQRPLAD 30
-----MADQLIST---AVHEELPENYVRPEAQQRPLHE 30
-----MAEQLIST---AEHDTLPDSYVRPETQRPRLRE 30
-----MAEHLIST---ADHDRLPDSYVRPETQRPRLRE 30
-----MESSNVLLT---GTRYSNLPENYVRSVSDRPLSE 32
-----MAAKLIST---GFRHTTL PENYVRPHSDRPLSE 31
-----MAAKLIST---GLRHTTL PGNYVRPISDRPLSE 31
-----MAAKLIST---GFRHTTL PENYVRPISDRPLSE 31
-----MAATLIST---GLRHTTL PENYVRPISDRPLSE 31
-----MSSVMEIQLLCS---GGRHEKLPEKYERPESDRPRLSE 35
-----METKVISS---GINHSTLPQSYIRPESDRPLSE 31
-----METKV-IS---GVHFSSLPPASYIRPESDRPKLSE 30
-----MESKVLST---GIRYLTL PQSYIRPEPERPRLSQ 31
-----METKVLSS---GVRYENLPENYVRPESERPRLAE 31
-----MDSKVLST---GIPFTTL PENYIRPESERPRLSE 31
-----MDTKVLSS---GIRYSNLPESFIRPESERPRLSE 31
-----MDTKVLSS---GIHYSKLPESYIRPESDRPCLSQ 31
-----MDTKVLSS---GVQYSNLPESYIRPESERPRLSE 31
-----MDIKVLSS---GVQYSNLPESYIRPESERPRLSE 31
-----MDIKVLSS---GVQYSNLPESYIRPESERPRLSE 31
-----MEAKVISG---GTRFTSLPRS YVRPESERPRLSE 31
-----MEAKVISG---GTRFTSLPRS YVRPESERPRLFE 31
-----MEAKVISG---GTRFTRLPRS YVRPESERPRLSE 31
-----METKVLSS---GFKYENLP EGYVRPESERPRLSE 31
-----MDTKVLSS---GIRYTNLPEGYVRPESERPNLSE 31
-----MAAKLLSD---LASGVTCVP SNYVRPVHDRPSLDQ 32
-----MAAKLLSD---LASGVTCVP SNYVRPVHDRPSLDQ 32
-----MAAATTKLLSD---LASTVKSVPSNYIRPISDRPNLTE 36
-----MAAATTKLLSD---LASTVKSVPSNYIRPISDRPNLTE 36
-----MATAIAKPLLSD---LVAESGTVPSSHIRPVGDRPDLAD 36
-----MAPAIAKPLLSD---LVAQSGQV PSSHIRPVGDRPDLN 36
-----MAPTIAKPLLSD---LVAQIGQVPLSHVRPVGDRPDLAN 36

S.bicolor_Sb06g026350	-----MAPAISKPLLSD-LVAQIGKVPSSHIRPVGDRPDLAN	36
Z.mays_GRMZM2G050234	-----MAPAISKPLLTD-LVAQIGKVPSSHIRPVGDRPDLAN	36
G.max_Glyma03g42250	-----MAEKLVLVSD-MASTMKQVPSNFIRPLGDRPNLQG	34
G.max_Glyma16g01990	-----MATTKPLLTD-LASTVDRVPSNFIRPIGDRPNLQQ	34
G.max_Glyma07g05420	-----MAATKPLLTD-LASTIDRVPNSFIRPIGDRPKLHQ	34
VvDLO1	-----MANAKLLLSD-LASSIDCVPSRYVRPVNDRPNLDE	34
R.communis_30076.t000026	-----MAIAKPLLSD-LVSTITSVPSNFIRPLSDRPNFNE	34
AldLO1	-----MATSATSKLLVSD-FDSSVSHIPSNYVRPILDRPNLSE	37
AtDLO1	-----MATSAISKLLVSD-FASS-VHIPSNYVRPISDRPNLSE	36
AldLO2	-----MAASATSKLLVSD-IASVVDHVPSNYVRPVSDRPNMSE	37
AtDLO2	-----MAASKLLVSD-IASVVDHVPSNYVRPVSDRPMKSE	34
C.sativus_Cucsa.193360	-----MSASGHTKLLVTD-LAATVQQVPSRYVRPISDRPNSSD	37
C.papaya_evm.TU.sup_37.106	-----MAATKLLLAD-LASNLIKQVPAKYIQPISDRPNLAD	34
E.grandis_v1_0.017927m.g	-----MATAATKLLLID-RVPGINRVPNSYIRPQADRPNLTE	36
E.grandis_v1_0.017897m.g	-----MATAATKLLLID-RVPGINRVPNSYIRPEADRPNLTE	36
E.grandis_v1_0.047536m.g	-----MLTSAAQINTMTSYSALGRRFGENEKTAKLLLTD-LASGIDRVPDNYIRSEADRPNLTE	59
E.grandis_v1_0.017895m.g	-----MAPAAAKVLLTD-LASGIDRVPDNYIRSEADRPNLTE	36
E.grandis_v1_0.017876m.g	-----MAPAAAKVLLTD-LASGIDRVPDNYIRSEADRPNLTD	36
E.grandis_v1_0.015926m.g	-----MAPAAAKVLLTD-LASGIDRVPDNYIRSEADRPNLTE	36
VvDLO2 (V2D)	-----MVPSTTKLLLTD-MVLGVDHVPSNYVRPPSERPNFKD	36
C.clementina_0.9_014263m.g	-----MSAAATTATKLLLSD-LAPTLTNVPSDYIRPISDRPSLTD	39
P.persica_ppa008100m.g	-----MATATKLLLTD-LMSGVNHVPSNYVRPISDRPNLSD	35
P.persica_ppa008091m.g	-----MATATKLLLTD-LMSGVNHVPSNYVRPISDRPNLSD	35
R.communis_30068.t000102	-----MAS-TKLLLADI-ASGVRHVPSKYIRPVSDRPNLSD	34
M.esculenta_4.1_029834m.g	-----MAF-SKPLLADISSLGVKNVPSSYIRPISDRPNLSD	35

:

DMR6

B.distachyon_Bradi5g19240

O.sativa_Os04g49194

O.sativa_Os10g39140

S.bicolor_Sb01g030560

ZmFNSI-1/ZmDMR6

B.distachyon_Bradi1g77040

O.sativa_Os03g03034

S.italica_Si036512m.g

S.bicolor_Sb01g049030

Z.mays_GRMZM2G475380

A.coerulea_v1.008143m.g

E.salsugineum_TP2g22820

C.rubella_006g21660

AtDMR6

AlDMR6

C.sativus_Cucsa.273300

SlDMR6

M.guttatus_mgv1a009622m.g

VvDMR6.1

C.papaya_16416436

VvDMR6.2 (E53G)

R.communis_29866.t000021

M.truncatula_Medtr3g122530

G.max_Glyma04g227900

G.max_Glyma06g137000

G.max_Glyma06g14190

E.grandis_v1_0.018520m.g

E.grandis_v1_0.018494m.g

E.grandis_v1_0.018496m.g

P.persica_ppa008269m.g

C.clementina_0.9_015118m.g

P.persica_ppa022381m.g

P.persica_ppa019415m.g

C.clementina_0.9_032642m.g

C.clementina_0.9_012078m.g

DLO

B.distachyon_Bradi5g19250

O.sativa_Os04g49210

S.italica_Si010491m.g

VA--TDSNIPLIDLAS--P-DKLRVIAEIDRACRTYGFFQVINHGISEELLEKVMAVGLE 86
VA--TDSNIPLIDLAS--P-DKPRVIAEIAQACRTYGFFQVTNHGIAEELLEKVMAVALE 87
VV--SDARIPVVDLAS--P-DRAAVVSAGDACRTHGFFQVNHNHIDAALIASVMEVGRE 91
VV--TGARIPVVDLGS--P-DRAAVVAAIGDACRSHGFFQVLNHNHGHADLVAAVMAVGRA 85
VV--TGARIPVVDLGS--P-DRGAVVAAVGDACRSHGFFQVNHNHGHADLVAAVMAAGR 85
VV--PDAHIPVVDLAH--P-DRAAIVSQIGAACRSHGFFQVLNHNGLPAELMEAAMAVAHE 85
VL--SDASIPVVDLAN--P-DRAKLVSQVGAACRSHGFFQVLNHNHGPVELTLSVLAVAHD 85
VV--SDAQIPVVDLAD--P-DPAAVVASIGEACTTHGFFQVLNHNHGPVELMVAMLAVAYE 85
VV--PDAEIPVVDLAV--P-DRAAVVARVAEACRTHGFFQVNHNHGVAAEELTAAMLAVAYE 85
VV--PDAEIPVVDLAD--P-DREAVVARVAEACRTHGFFQLLNHGVPEQLTAAMMSVAYE 85
VK--DCENVPVIDLSV--A-DESLLAQIQIGNACKSHGFFQVINHGVNSELVEKMMEISHE 87
VS--QLEDFPLIDLSS--T-DRSRLLQQIHQACARFGFFQVINHGVSKERIDEMVSVANE 86
VS--QLEDFPLIDLSS--S-DRSLLVQOTHQACARFGFFQVTNHGVSKQVIDDMVSVAHE 86
VS--QLEDFPLIDLSS--T-DRSFLIQQIHQACARFGFFQVINHGVNQKQIIDEMVSVARE 86
VS--QLEDFPLIDISS--T-DRSVLVQQIHQACARFGFFQVINHGVSQOLIDEMVSVAHE 86
VC--CWDKVPIDI LGC--E-EREMIVKQVEEACKSYGFFQVINHGVRKELVEKVIEVGKQ 90
VV--DCENVPIDI LSC--G-DQAQIIROQIGEACQTYGFFQVINHGVPKEVVEKMLGVAGE 86
IE--EFDNVPVIDLG C--E-DHNLIVKQIGDACREYGFQVINHGVS KALVDNILCVAHE 85
VS--ECKHVPIIDL GK--DVNR AQLIQHIADAC RLYGFFQVINHGVA AEMMEKMLEVADE 87
VS--ACQNVPVVDLGC--D-DRTQIIQQISDACKDFGFFQVINHG VSEETRDGMIGVAKE 86
IA--DCENVPIDI LSC--D-DRAQII EQLADACSRYGFFQVINHGVS AEAIEKMLHVANE 86
VL--ACDNVPIVDLGC--E-DGAQV VQQI GYACSNYGF QVINH KVPDEV VADM LLVASE 86
VS--EFENVPIDI LG S--H-NRTQIVQOQIGEACSSYGF FQVNHNHGP LEELKK TAEVAYD 86
VS--ECEDVPIIDL G C--Q-NRAQIVHQIGEACRNYGFFQVINHGVALEAAKEMAEVAHG 86
VS--ECEDVPIIDL GS--Q-NRAQIVHQIGEACRNYGFFQVINHGVALEAAKEMEEVAHG 86
VS--ECEDVPIIDL GS--Q-NRAQIVHQIGEACRNYGFFQVINHGVALEAAKEMEEVAHG 86
VS--AFEHVPIIDL G C--N-DRS QV VRQVGDACRVYGF FQVINHG VSTE AVER MQEVA AE 86
VS--AFEHVPIIDL G C--N-DRS R VV RQVGDACRVYGF FQVINHG VSTE AVER MQEVA AE 86
VS--AFEHVPIIDL G C--N-DRS R VV HQVGDACRVYGF FQVINHG VSTE AVER MQEVA AE 86
VS--ECKNIPVINLAS--E-NRAETVQOQVG DACKSYGFFQVINHG VSTE AVE KMLGTATE 86
VS--ECENVPVIDLAC--D-DRSLIVQ QVADACKNYGFFQAINHEVPLETVERVIEVAK E 86
VQPS-DHSIPLINLRGFDGSRRHEIIINQIGLACQNYGFFQVNHNHAIEEVVIDNMLKVARE 91
VQPS-DHSIPLINLHGFDGSRRHEIIINQIGLACQNYGFFQVNHNHAIEEVVIDNMLKVARE 91
-VQISDGSIPLIDLQVL DGP RRLDI IKQIGQACQHDGVFQVKNHNHGPETIINSMLSITRA 95
-VQISDGSIPLV DQLVNGPSRLDTIKQIGQACQHDGF FQVRNHNHGPETIINNMLTIARA 95

VDHESGAGIPLIDLKHL DGPER RR VVAIGSACETDGF FMV TNHG IPEAVV EGMLR VAKE 96
VDHESGAGIPVIDLKQLDGPDRRKVVAIGSACETDGF FMV KNHG IPEEVV EGMLR VARE 96
VDNE SGAGIPLIDLKKLNGPQRREV VEAIGRACGSDGFFMVTNHGIPAGV VEGMLR VARE 96

S.bicolor_Sb06g026350	VDNESGAGIPLIDLKMLNGPERRKVVEAIGRACESDGFFMVTNHGIPAAVVEGMLRVARE	96
Z.mays_GRMZM2G050234	VDNESGAGIPLIDLKMLNGPERRKVVEAIGKACESDGFFMVTNHGIPAAVVEGMLRVARE	96
G.max_Glyma03g42250	VVQSSDVCIPLIDLQDLHGPNRSIIQQIDQACQNYGFFQVTNHGVPEGVIEKIMKVRE	94
G.max_Glyma16g01990	LHSS-IASIPIDIQLQGLGGSNHSQIIQONIAHACQNYGFFQIVNHGIPEEVVSKMVNVSK	93
G.max_Glyma07g05420	LHSS-LASIPIDIQLQGLGGSNHSQIIQONIAHACQTYGFFQIVNHGIQEEVVSKMVNVSK	93
VvDLO1 (H52L)	VQSSLGDGSIPLIDLQDLHGPSRSHVIKQIAEACQIDGFFRVKNHGIPESVIHGM LISITKE	94
R.communis_30076.t000026	VIQTSDCSIPLIDLQGLDGPLRSTLVKEIGQACQGYGFFQVKNHGIPEDVIDKMLS VSRE	94
AldLO1	V-ESSSDS IPI LIDL RELHGPNRAEVVQ QOLD SAC STY GFF QIK NHG VPDTT VDKMLTVARE	96
AtDLO1	V-ESSGDSIPLIDLRLDHGP N RAVIVQ QLAS AC STY GFF QIK NHG VPDTT VNK M QTVARE	95
AldLO2	V-ETFGDSIPLIDLQDLHGPNRANIINQFAHACSSYGFFQIKNHGVPEEIIKQMMNVGRE	96
AtDLO2	V-QTSGDSIPLIDLHDLHGPNRADIINQFAHACSSCGFFQIKNHGVPEETIKKMMNAARE	93
C.sativus_Cucsa.193360	VRPSNTYSFSVIDLHALDGPSRPDVYQIRRACERDGFFLVKNHGVP EEMINGVMRITRE	97
C.papaya_evm.TU.sup_37.106	VEISELSSIPLIDLQGLDP PRSEIINQIAQACELHGFFQVKNHGVPEEMINGILRLARE	94
E.grandis_v1_0.017927m.g	VEASDASTIPLIDLQGLFGPNRDDIIIRQIGKACQRDGFFQIKNHGIPEEVVQAIMNIAGE	96
E.grandis_v1_0.017897m.g	VEASDASTIPLIDLQGLFGPNRDDIIIRLIGEACQ QDGFFQIKNHGIPEEVVQAIMNIAGE	96
E.grandis_v1_0.047536m.g	VEASDASYIPLVDLQGLSGP NRDDIIIRQIGRACQ QDGFFQIKNHGIPEEKVQAIMNIARE	119
E.grandis_v1_0.017895m.g	VEASDASSIPLVDLQGLSGP NRDDIIIRQIGRACQ QDGFFQIKNHGIPEEKVQAIMNIARE	96
E.grandis_v1_0.017876m.g	VEASDASSIPLVDLQGLSGP NRDDIIIRQIGRACQ QDGFFQIKNHGIPEEKVQAIMNIARE	96
E.grandis_v1_0.015926m.g	-VQASDVS IPI LIDLQDLQGPGRPDVVVKQIGQACQHSGFFQIQNHGVSETMISNILRLARD	95
VvDLO2	QTHISDGSIPLIDLQGLNGP RRS DIIKQIGQACQHCGFFQVKNHGISEAMINNMLSIA RT	99
C.clementina_0.9_014263m.g	-VQISDASIPLIDLKDLHGHNHSNIIKQIGLACQTDGFFQVKNHGVPEEMIKDMLSIA RE	94
P.persica_ppa008100m.g	-VQISDASIPLIDLKDLHGHNHSNIIKQIGLACQTDGFFQVKNHGVPEEMIKDMLSIA RE	94
P.persica_ppa008091m.g	-VHKSDGSIRLIDLKGLRSPN RALVIKQIGQACQTDGFFQVKNHGLPDEMIN SIMRTARE	93
R.communis_30068.t000102	-VEMSDAAIPLIDLQGLYGPNHSVLVIAQIGRACQFDGFFQVKNHGIPEDVIDTILHTGTD	94
M.esculenta_4.1_029834m.g	.	

. : :: :

** *.* ** :

DMR6

B.distachyon_Bradi5g19240
O.sativa_Os04g49194
O.sativa_Os10g39140
S.bicolor_Sb01g030560
ZmFNSI-1/ZmDMR6
B.distachyon_Bradi1g77040
O.sativa_Os03g03034
S.italica_Si036512m.g
S.bicolor_Sb01g049030
Z.mays_GRMZM2G475380
A.coerulea_v1.008143m.g
E.salsugineum_TP2g22820
C.rubella_006g21660
AtDMR6
AlDMR6
C.sativus_Cucsa.273300
SlDMR6
M.guttatus_mgv1a009622m.g
VvDMR6.1 (Y89H)
C.papaya_16416436
VvDMR6.2
R.communis_29866.t000021
M.truncatula_Medtr3g122530
G.max_Glyma04g227900
G.max_Glyma06g137000
G.max_Glyma06g14190
E.grandis_v1_0.018520m.g
E.grandis_v1_0.018494m.g
E.grandis_v1_0.018496m.g
P.persica_ppa008269m.g
C.clementina_0.9_015118m.g
P.persica_ppa022381m.g
P.persica_ppa019415m.g
C.clementina_0.9_032642m.g
C.clementina_0.9_012078m.g
DLO
B.distachyon_Bradi5g19250
O.sativa_Os04g49210
S.italica_Si010491m.g

FFRLPPEEKAKLYSDEPSKKIRLSTSFnVRKETVHNWRDYLRLHCHPLEEFVPDWPSNPE 146
FFRLPPEEKAKLYSDEPSKKIRLSTSFnVRKETVHNWRDYLRLHCHPLEEFVPDWPSNPA 147
FFRLPAEEKAKLYSDDPAKKIRLSTSFnVRKETVHNWRDYLRLHCHPLQFVPDWPSNPP 151
FFRLSPEEKAKLYSDDPARKIRLSTSFnVRKETVHNWRDYLRLHCHPLDEFVPDWPSNPP 145
FFRLPPEEKAKLYSDDPARKIRLSTSFnVRKETVHNWRDYLRLHCHPLDEFVPDWPSNPP 145
FFRLSPEEKAKLYSDDPAKKIRLSTSFnVRKETVHNWRDYLRLHCHPLEQFVPDWPSNPS 145
FFRLPAEEKAKLYSDDPAKKIRLSTSFnVRKETVHNWRDYLRLHCHPLHRYLPDWPSNPP 145
FFRLPAEEKAKLYSDDPGKKMRLSTSFnVRKETVHNWRDYLRLHCHPLEQYVPDW PANPP 145
FFRLPAEEKAKLYSDDPGKKMRLSTSFnVRKETVHNWRDYLRLHCHPLEQYVPDW PDNPP 145
FFRLPAEEKAKLYSDDPAKKMRLSTSFnVRKETVHNWRDYLRLHCHPLEQYVPDW PDNPP 145
FFHLPLDVKMQFYSDDPKTMRSLSTSFnLKESVNWRDYLRLHCHPIEKYVQEWP SVPS 147
FFSMTMEEKMKLYSDDPTKTRSLSTSFnVKKEEVNNWRDYLRLHCHPIHKYVHEW PSNPP 146
FFSMSMEEKMKLYSDDPTRTTRSLSTSFnVKKEEVNNWRDYLRLHCHPIHKYVHEW PSKPP 146
FFSMSMEEKMKLYSDDPTKTRSLSTSFnVKKEEVNNWRDYLRLHCHPIHKYVNEW PSNPP 146
FFSMSMEEKMKLYSDDPTKTRSLSTSFnVKKEEVNNWRDYLRLHCHPIHKYVHEW PSNPP 146
FFELPMEEKLFYSDDPSTKVRLLSTSFnVRKEQFRNWRDYLRLHCHPLSNYT PHWPSNPP 150
FFNLPVEEKKLKLYSDDPSKTMRLSTSFnVKETVHNWRDYLRLHCHPLEKYAPEW PSNPS 146
FFDLSVEEKMKLYSDDPTKTMRLSTSFnVKETVHNWRDYLRLHCHPLEKYVPEW PSNPS 145
FYRLPVEEKMKLYSDDPTKTMRLSTSFnVKNEKVHNWRDYLRLHCHPLDQYT PEWPSNPP 147
FFSLPMEEKMKIYSDDPAKTRSLSTSFnVKKEKVHNWRDYLRLHCHPLH KYMPEW PSSSPP 146
FFQLPVEEKMKLYSDDPSKTMRLSTSFnVKKEKVHNWRDYLRLHCHPLEQY MPEW PSNPP 146
FFKLPLEEKLKIYSDDPTKTMRLSTSFnMKKEKVHNWRDYLRLHCHPLDKYI SEWPS DPP 146
FFKLPVEEKMKLYSDDPTKTMRLSTSFnVKKEKVHNWRDYLRLHCHPLDN YVPEW PSNPP 146
FFKLPVEEKKLKLYSEDPSKTMRLSTSFnVKETVHNWRDYLRLHCHPLDKYAPEW PSNPP 146
FFKLPVEEKKLKLYSEDTSKTMRLSTSFnVKETVRNWRDYLRLHCHPLEKYAPEW PSNPP 146
FFKLPVEEKKLKLYSEDTSKTMRLSTSFnVKETVRNWRDYLRLHCHPLEKYAPEW PSNPP 146
FFRLPVEEKMKLYSEDPTKTMRLSTSFnVKKEKVHNWRDYLRLHCHPLEKY MEEWP ANPP 146
FFRLPVEEKMKLYSEDPTKTMRLSTSFnVKKEKVHNWRDYLRLHCHPLEKY MEEWP ANPP 146
FFRLPVEEKMKLYSEDPTKTMRLSTSFnVKKEKVHNWRDYLRLHCHPLEKY MEEWP ANPP 146
FFSLPVEEKMKLYSDDPSKTMRLSTSFnVKKEKVHNWRDYLRLHCHPLEKYVPEW PSNPS 146
FFNLPVEEKKLKLYSDDPSKTMRLSTSFnVKNEKVHNWRDYLRLHCHPLDKYVPEW PSNPS 146
FFHLPENERLKCFSDDPLKTTRLSTSFnVKTEKVSSWRDYLRLHCHPLEDYMHEW PSNPP 151
FFHLPESERLKCFSEDPLKTTRLSTSFnVKTEEVSSWRDYLRLHCHPLEDYMHEW PSNPP 151
FFKLPESERLKSYSDDPSKSTRSTSFnVNTEKVSNWRDYLRLHCHPLQDYIHEW PSNPP 155
FFKLPESERLKSYSDDPSKSTRSTSFnVNTEKISNWRDYLRLHCHPLQDYMHEW PSNPP 155

FFHLPESERLKCYSDDPKKAIRLSTSFnVRTEKVSNWRDFLRLHCHPLQS FIDQWPSNPP 156
FFHMPESERLKCYSDDPKKAIRLSTSFnVRTEKVSNWRDFLRLHCHPLSFIDQWPSNPP 156
FFHMPESERLKCYSDDPKKAIRLSTSFnVRTEKVSNWRDFLRLHCHPLESFIEQWPSNPP 156

S.bicolor_Sb06g026350	FFHLPESERLKCYSDDPKKAI _R LSTSFNVRTEKVNNWRDFLRLHCYPLESFVDQWPSNPP	156
Z.mays_GRMZM2G050234	FFHLPESERLKCYSDDPNKAI _R LSTSFNVRTEKVSNWRDFLRLHCYPLQSFVDQWPSNPP	156
G.max_Glyma03g42250	FFGLPESERLKCYS _D DPFKASR _L STSFNVN _E KVSSWRDFLRLHC _H PIEDYIKEWPSNPP	154
G.max_Glyma16g01990	FFGLPESERLKNYS _D DPKTTR _L STSFNV _K TEKVSNWRDFLRLHC _H PLEDYIQEWPGNPP	153
G.max_Glyma07g05420	FFGLPESERLKNFS _D DPSKTTR _L STSFNV _K TEKVSNWRDFLRLHC _H PLEDYIQEWPGNPP	153
VvDLO1	FFHLPESERLKNYS _D DP _L KTM _L STSFNV _K TEQVSNWRDFLRLHC _H PLEDYIQEWPSNPP	154
R.communis_30076.t000026	FFHLPESERMKNYSD _D PMMRT _L STSFNVRTEKTSNWRDFLRLHC _Y PLDDYMQEWP _T NPP	154
AlDLO1	FFHQPESERVKHYSADPTKTT _R LSTSFNV _I GNIGADKILNWRDFLRLHC _F PIEDFIEEWPS _S PI	156
AtDLO1	FFHQPESERVKHYSADPTKTT _R LSTSFNV _G ADKVLNWRDFLRLHC _F PIEDFIEEWPS _S PI	155
AlDLO2	FFHQSESERVKHYSADTKTT _R LSTSFNV _S KEKVSNWRDFLRLHC _Y PIEDFIHEWP _S TPV	156
AtDLO2	FFRQSESERVKHYSADTKTT _R LSTSFNV _S KEKVSNWRDFLRLHC _Y PIEDFINEWP _S TPI	153
C.sativus_Cucsa.193360	FFRLPESERLKCYS _D DPKT _K TR _L STSFNV _K TEKVANWRDFLRLHC _Y PLHLYVDEWPSNPP	157
C.papaya_evm.TU.sup_37.106	FFRLPESQRLENYS _D DPAKT _T TR _L STSFNV _K TEKF _S NWRDFLRLHC _Y PVQDYIHEWP _T NPP	154
E.grandis_v1_0.017927m.g	FFRLPESERLKNYS _D DPSK _T RLSTSFNI _K TEKVSNWRDFLRLHC _Y PLEEYMH _E WP _T NPP	156
E.grandis_v1_0.017897m.g	FFRLPESERLKNYS _D DPSK _T RLSTSFNI _K TEKVSNWRDFLRLHC _Y PLEEYMH _E WP _T NPP	156
E.grandis_v1_0.047536m.g	FFHLPESERLKNYS _D DPKT _K TR _L STSFNL _K TEKVSNWRDFLRLHC _Y PLEEYMH _E WP _T NPP	179
E.grandis_v1_0.017895m.g	FFHLPESERLKNYS _D DPKT _K TR _L STSFNL _T ETVSNWRDFLRLHC _Y PLEEYMH _E WP _T NPP	156
E.grandis_v1_0.017876m.g	FFQLPESERLKNYS _D DPKT _K TR _L STSFNL _T ETVSNWRDFLRLHC _Y PLEEYMH _E WP _T NPP	156
E.grandis_v1_0.015926m.g	FFRLPESERLKNYS _D DPKT _K TR _L STSFNL _K TEKVSNWRDFLRLHC _Y PLEEYMH _E WP _T NPP	156
VvDLO2	FFQLPESERLKNYS _D NP _S NP _V RLSTSFNV _K TEKVANWRDFLRLHC _Y PLEDYVHQWPSNPP	155
C.clementina_0.9_014263m.g	FFKLPESERLKIYS _D DPSK _T RLSTSFNV _K TEKVSNWRDFLRLHC _Y PLQDYVHD _W PL _N NNPP	159
P.persica_ppa008100m.g	FFKLPESERLKMYS _D DPSKTTR _L STSFNVRTEKLSNWRDFLRLHC _Y PLEDYVQEWP _{NN} NNPP	154
P.persica_ppa008091m.g	FFKLPESERLKMYS _D DPSKTTR _L STSFNVRTEKLSNWRDFLRLHC _Y PLEDYVQEWP _{NN} NNPP	154
R.communis_30068.t000102	FFKLPESERLKCYSNDPTKTT _R LSTSFNV _K TEKVSNWRDFLRLHC _Y PLADYIQEWPCNPP	153
M.esculenta_4.1_029834m.g	FFKLPESERLKCYS _D DPAKT _T RLSTSFNV _K TEKF _S NWRDFLRLHC _Y PVEDYIQEWPSNPP	154

*: . : : * : *: *: *: *: *: *: *: *: *: *: *: *: *: *

DMR6

B.distachyon_Bradi5g19240

O.sativa_Os04g49194

O.sativa_Os10g39140

S.bicolor_Sb01g030560

ZmFNSI-1/ZmDMR6

B.distachyon_Bradi1g77040

O.sativa_Os03g03034

S.italica_Si036512m.g

S.bicolor_Sb01g049030

Z.mays_GRMZM2G475380

A.coerulea_v1.008143m.g

E.salsugineum_TP2g22820

C.rubella_006g21660

AtDMR6

AlDMR6

C.sativus_Cucsa.273300

SlDMR6

M.guttatus_mgv1a009622m.g

VvDMR6.1

C.papaya_16416436

VvDMR6.2

R.communis_29866.t000021

M.truncatula_Medtr3g122530

G.max_Glyma04g227900

G.max_Glyma06g137000

G.max_Glyma06g14190

E.grandis_v1_0.018520m.g

E.grandis_v1_0.018494m.g

E.grandis_v1_0.018496m.g

P.persica_ppa008269m.g

C.clementina_0.9_015118m.g

P.persica_ppa022381m.g

P.persica_ppa019415m.g

C.clementina_0.9_032642m.g

C.clementina_0.9_012078m.g

DLO

B.distachyon_Bradi5g19250

O.sativa_Os04g49210

S.italica_Si010491m.g

AF-KEIISTYC**REVRLLGLRLMGAISLSLGLDENYVEN**-VLG----EQEQHMAVNYYPPC

200

QF-KEIMSTYC**REVQLGLRLLGAISVSLGLEEDYIEK**-VLG----EQEQHMAVNYYPPC

201

SF-KEIIIGTYCTEVRELGFRLYEAISES**SLGLEGGYMR**E-TLG----EQEQHMAVNYYPPC

205

DF-KDTMSTYC**KEVRELGFRLYAAISES**SLGLEASYMKE-TLG----EQEQHMAVNFYPPC

199

DF-KETMGTYC**KEVRELGFRLYAAISES**SLGLEASYMKE-ALG----EQEQHMAVNFYPPC

199

AF-REVMSTYC**KEIRELGFR**LYAAISES**SLGLEEDYMK**K-VLG----EQEQHMAVNFYPKC

199

SF-REIISTYC**KEVRELGFRLYGAISES**SLGLEQDYIKK-VLG----EQEQHMAVNFYPKC

199

SF-REIVSAYC**REVRALGFRLYEAISASLGLEEDYVK**R-TLG----EQEQHMAVNFYPRC

199

SF-RETVSAYC**REVRALGFRLYGAISES**GLLDGVYIKE-TLG----EQEQHMAVNFYPRC

199

SF-RRTVSAYCSAV**RELGFRLYVAISES**GLLDGAYIKE-ALG----EQEQHMAVNFYPRC

199

TF-KDVVATYC**KEVRKLGLRLLGSISL**SIGLEEDYIEK-VLG----DQGQHMAVNYYPPC

201

SF-KEIVSKYS**RQVRDV**GCTIEELISES**SLGLEKDYM**KK-VLG----EQGQHMAINYYPPC

200

SF-KEVVSKYS**REVREVGFNIEELI**SES**SLGLEKDYL**KK-VLG----EQGQHMAVNYYPPC

200

SF-KEIVSKYS**REVREVGFKIEELI**SES**SLGLEKDYM**KK-VLG----EQGQHMAVNYYPPC

200

SF-KEIVSKYS**REVREVGFKIEELI**SES**SLGLEKDYM**KK-VLG----EQGQHMAVNYYPPC

200

SF-REIVSSYC**NEVRKVGYRIEELI**SES**SLGLEKEYIRK**-KLG----EQGQHMAINYYPPC

188

SF-REIVSRYC**REIRQLGFR**LEEAIAES**SLGLDKECIKD**-VLG----EQGQHMAINYYPPC

200

SF-KDVVSTYC**AEIRQLGLRLQED**ISES**SLGLDKDNLKN**-VLG----DQGQHMAVNYYPAC

199

SF-KEIVSSYC**KEVRELGFRLQEM**ISES**SLGLEKDHDH**KN-VFG----EQGQHMAVNYYPPC

201

SF-KEVVSKYS**IEVRELGLR**IEELISES**SLGLDKDLIRN**-VVG----EQGQHMAVNYYPPC

200

EF-KDTVSNYC**VEVRQLGHRL**EEAIGES**SLGLEKDY**IRN-TLG----EQGQHMAVNYYPPC

200

LF-KEIVSRYC**IEVRKLGFRLQEL**ISES**SLGLPKDH**HIRN-VLG----EQGQHMAVNYYPPC

200

SF-KETVANYC**KEVRELGLR**IEEYISES**SLGLEKDYL**RN-ALG----EQGQHMAVNYYPPC

200

SF-KETVTEYCTLV**RELGLR**IQEYISES**SLGLEKDY**IKN-VLG----EQGQHMAVNYYPPC

200

SF-KETVTEYCTI**IRELGLR**IQEYISES**SLGLEKDY**IKN-VLG----EQGQHMAVNYYPPC

200

SF-KETVTEYCTI**IRELGLR**IQEYISES**SLGLEKDY**IKN-VLG----EQGQHMAVNYYPPC

200

TF-KEFVSNYC**REVRR**LGYR**LEELI**SES**SLGLEKD**AVRN-ILG----EQGQHMAVNFYPPC

200

TF-KEFVSNYC**REVRR**LGYR**LEELI**SES**SLGLEKD**AVRN-ILG----EQGQHMAVNFYPPC

200

TF-KEFVSNYC**REVRR**LGYR**LEELI**SES**SLGLEKD**AVRN-ILG----EQGQHMAVNFYPPC

200

SF-KDIVSKYSEE**RELGFRLQEL**ISES**SLGLEKDY**IKS-TLG----EQGQHMAVNFYPPC

200

TF-KEFVSTYC**SEVRGLGYRV**LEELISES**SLGLEKDY**IKK-VLG----EQGQHMAVNFYPPC

200

SF-REDVAEYC**RNVKG**LAERLL**EAISES**SLGLEKDYMNR-ALG----KHGQHMAINYYPPC

205

SF-REDVAEYC**RNVKG**LAERLL**EAISES**SLGLEKDYMNR-ALG----KHGQHMAINYYPPC

205

SF-RYN-----YARGLVLRLL**EAISES**SLGLQRDYIDK-ALG----KHRQHMALNYYPHC

203

SV-REVVAEYCTS**VRGLVRL**LEAISES**SLGLQRDF**IDK-ALG----KHGQHMALNYYPPC

209

AF-REVVGAY**STEARALALR**L**LEAISES**SLGLERRHMVT-AMG----GHAQHMAVNYYPPC

210

SF-RQVVGTYS**REARALALR**L**LEAISES**SLGLERGHMVS-AMG----RQAQHMAVNYYPPC

210

SF-REVVGTY**ATEARALALR**L**LEAISES**SLGLERSHMVA-AMG----RQAQHMAVNYYPPC

210

S.bicolor_Sb06g026350	SF-RQVVGTYATEARALALRLLEAISESILGLERSHMVR-AMG----RHAQHMAVNYYPPC	210
Z.mays_GRMZM2G050234	SF-RQVVGTYATEARALALRLLEAISESILGLERSHMVA-AMG----RHAQHMAVNYYPPC	210
G.max_Glyma03g42250	SLSREDVAEYC RKM RGVSLKLVEAISESILGLERDYINR-VVGGKKGQEQQHLAMNYYFAC	213
G.max_Glyma16g01990	SF-REDVAEYS RKM RGLSLKLLEAISESILGLEKDYIDK-ALG----KHGQHMAINYYPPC	207
G.max_Glyma07g05420	SF-REDVAEYS RKM RGLSLKLLEAISESILGLERDYIDK-ALG----KHGQH LAI NYYPPC	207
VvDLO1	SF-REVVAEYC K E A R K L A L L L E A I S E S I L G L E R N H I D K - A L G ----KHSQQM A L N Y Y P P C	208
R.communis_30076.t000026	SF-REDVGEYCRNVRDLAVRLLEAISESILGLERDYINK-ALD----KHAQH L A V N Y Y P S C	208
AldLO1	SF-KEVTAEYATSVRALVLRLLEAISESISLGLESDHISN-ILG----KHAQH MAF N Y Y P P C	210
AtDLO1	SF-REVTAEYATSVRALVLRLLEAISESISLGLESDHISN-ILG----KHAQH MAF N Y Y P P C	209
AlDLO2	SF-REVTAEYATSVRALVLTLLAEISI S L G L V K D R V S N - T L G ----KHGQH M A I N Y Y P P C	210
AtDLO2	SF-REVTAEYATSVRALVLTLLAEISI S L G L A K D R V S N - T I G ----KHGQH M A I N Y Y P R C	207
C.sativus_Cucsa.193360	SF-RKEVAEYCTTMRQLTLKLLEAISESISLGLPKDSIAN-SIG----SHGQH M A L N Y Y P P C	211
C.papaya_evm.TU.sup_37.106	FF-REDVAEYCS RIR GLVLKLVEAISESISLGLGGDYINK-VLG----KHGQH MAF N Y Y P P C	208
E.grandis_v1_0.017927m.g	SF-RKEVGEYCTR V R E L A L K L L E A I S E S I S L G L E R E Y I S K - N L G ----KHGQH M A M N Y Y P P C	210
E.grandis_v1_0.017897m.g	SF-RKEVGEYCTR V R E L A L K L L E A I S E S I S L G L E R E Y I S K - N L G ----KHGQH M A M N Y Y P P C	210
E.grandis_v1_0.047536m.g	SF-RKEVGEYCTR V R E L V F K L L E A I S E S I S L G L E R E Y I S Q - N L G ----EHGQH M A M N Y Y P P C	233
E.grandis_v1_0.017895m.g	SF-RKEVGEYCTR V R E L V L K L L E A I S E S I S L G L E R E Y I S Q - N L G ----KHGQH M A M N Y Y P P C	210
E.grandis_v1_0.017876m.g	SF-RKEVGEYCTR V R E L V F K L L E A I S E S I S L G L E R E Y I S Q - N L G ----KHGQH M A M N Y Y P P C	210
E.grandis_v1_0.015926m.g	SF-RKEVGEYCTR V R E L V L K L L E A I S E S I S L G L E R E Y I S Q - N L G ----KHGQH M A M N Y Y P P C	210
VvDLO2	SF-REDVAEYCTSIRALVLRLLETI S E S I S L G L E K N Y V S G - V LG----KHGQH M A M N Y Y P P C	209
C.clementina_0.9_014263m.g	SF-REDVGDYCTS VRGLVLRLIQAISESISLGLPSDYIDKEALG----KHGQH M A L N Y Y P P C	214
P.persica_ppa008100m.g	SF-REQVGEYCTT VRGLVLRLLGAISESISLGLKNYIVE-ALG----KQGQH M A L N Y Y P P C	208
P.persica_ppa008091m.g	SF-REQVGEYCTT VRGLVLRLLGAISESISLGLKNYIVE-ALG----KQGQH M A L N Y Y P P C	208
R.communis_30068.t000102	LF-RKNVSEYSTS VRRLVLTLLEAISESISLGLKRDYIEK-TLS----KQGQH M A M N Y Y P P C	207
M.esculenta_4.1_029834m.g	SF-RKNVAEYCTR VRGLVLTLLEAISESISLGLKSDYIDK-ALS----KHGQH M A I N Y Y P P C	208

* . * . * . * .

DMR6

B.distachyon_Bradi5g19240

O.sativa_Os04g49194

O.sativa_Os10g39140

S.bicolor_Sb01g030560

ZmFNSI-1/ZmDMR6

B.distachyon_Bradi1g77040

O.sativa_Os03g03034

S.italica_Si036512m.g

S.bicolor_Sb01g049030

Z.mays_GRMZM2G475380

A.coerulea_v1.008143m.g

E.salsugineum_TP2g22820

C.rubella_006g21660

AtDMR6

AlDMR6

C.sativus_Cucsa.273300

SlDMR6

M.guttatus_mgv1a009622m.g

VvDMR6.1 (I253K)

C.papaya_16416436

VvDMR6.2

R.communis_29866.t000021

M.truncatula_Medtr3g122530

G.max_Glyma04g227900

G.max_Glyma06g137000

G.max_Glyma06g14190

E.grandis_v1_0.018520m.g

E.grandis_v1_0.018494m.g

E.grandis_v1_0.018496m.g

P.persica_ppa008269m.g

C.clementina_0.9_015118m.g

P.persica_ppa022381m.g

P.persica_ppa019415m.g

C.clementina_0.9_032642m.g

C.clementina_0.9_012078m.g

DLO

B.distachyon_Bradi5g19250

O.sativa_Os04g49210

S.italica_Si010491m.g

PEPDLYGLPKHTDPNALT^{|||}VLLQDPNVSGLQVLKDG-QWIAVDPRPNALVINLGDQLQ-- 257
PEPDLYGLPKHTDPNALT^{|||}ILLPDPHVAGLQVLRDGDQWIVVNPRPNALVVNLGDQIQ-- 259
PEPELTYGLPAHTDPNALT^{|||}ILLMDQQVAGLQVLNDG-KWIAVNQPGALVINIGDQLQ-- 262
PEPELTYGLPAHTDPNALT^{|||}ILLMDQDVAGLQVLHGG-KWAVAVNPQPGALIINIIGDQLQ-- 256
PEPELTYGLPAHTDPNALT^{|||}ILLMDPDVAGLQVLHAG-QWAVAVNPQPGALIINIIGDQLQ-- 256
PSPELTYGLPAHTDPNALT^{|||}ILLMDEQVAGLQVLKDG-QWIAVNPRPNALVVNLGDQLQ-- 256
PEPELTFGGLPAHTDPNALT^{|||}ILLMDQQVAGLQVLKEG-RWIAVNQPNALVINIGDQLQ-- 256
PAPELTYGLPAHTDPNALT^{|||}ILLMDQQVAGLQVLNDG-RWIAVNPRPNALVINIGDQLQ-- 256
PAPELTYGLPAHTDPNALT^{|||}ILLMDQQVAGLQVLKDG-RWIAVNPRPGALVVNLGDQLQ-- 256
PAPELTYGLPAHTDPNALT^{|||}ILLMDQQVAGLQVLHNG-KWAVAVNPYPNAFVVNIGDQIQT 258
PEPELTYGLPRHTDPNTIT^{|||}ILLQGQEVAGLQVLHNG-KWAVAVNPYPNAFVVNIGDQIQT 258
PEPELTYGLPAHTDPNVLT^{|||}ILLQDATVCGLQILIDG-HWFAVNPRLDAFVINIGDQLQ-- 257
PEPELTYGLPAHTDPNALT^{|||}ILLQDSTVCGLQILIDG-QWFAVNPHPNAFVINIGDQLQ-- 257
PEPELTYGLPAHTDPNALT^{|||}ILLQDTTVCGLQILIDG-QWFAVNPHPDAFVINIGDQLQ-- 257
PEPELTYGLPAHTDPNALT^{|||}ILLQDTTVCGLQILIDG-QWFAVNPHPDAFVINIGDQLQ-- 257
PQPELTYGLPGHTDPNALT^{|||}ILLQDLHVAGLQVLKDG-KWLAVNPHPNNAFVINIGDQLQ-- 245
PQPELTYGLPAHTDPNSLT^{|||}ILLQDLQVAGLQVLKDG-KWLAVKPQDAFVINLGDQLQ-- 257
PEPELTYGLPAHTDPNALT^{|||}ILLQDLQVAGLQVLKDG-KWLAIKPQPGAFVINIGDQLQ-- 256
PQPELTYGLPGHTDPNALT^{|||}ILLQDLRVAGLQVLKDG-TWLAIKPHPGAFVVNIGDQLQ-- 258
PQPELTYGLPAHTDPNALT^{|||}ILLQDLQVSGLQVLKDG-KWAVAVHPQPNNAFVINIGDQLQ-- 257
PEPELTYGLPAHTDPNALT^{|||}ILLQDSHVAGLQVLKDG-KWAVAVKPHPGAFVVNIGDQLQ-- 257
PQPDLTYGLPGHTDPNALT^{|||}ILLQDLQVAGLQVKFDG-KWLAVNPHPNNAFVINLGDQLQ-- 257
PQPELTYGLPGHTDPNALT^{|||}ILLQDLHVAGLQVLKDG-KWLAINPIPDAFVINIGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLQVCGLQVLKNG-KWLAVNPQPNNAFVINIGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLQVAGLQVLKDG-KWLAVSPQPNNAFVINIGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLQVAGLQVLKDG-KWLAVSPQPNNAFVINIGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLQVAGLQVLKDG-KWVAIDPHPNNAFVINIGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLHVAGLQVLKDG-KWVAIDPHPNNAFVINIGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLHVAGLQVLKDG-KWVAIDPHPNNAFVINIGDQLQ-- 257
PQPELTYGLPGHTDPNALT^{|||}ILLQDLLEVAGLQVLKDG-KWIAVNPHPNNAFVINLGDQLQ-- 257
PEPELTYGLPGHTDPNALT^{|||}ILLQDLLEVAGLQVLKDD-KWAVAVNPLPNNAFVINIGDQLQ-- 257
HQPELTYGLPGHADPNVV^{|||}LLLQD-DVAGLQVFNNNG-RWAVAVKPMPTFIVNIGDQIQT 261
HQPELTYGLPGHADPNVV^{|||}LLLQD-DVAGLQVFNNNG-RWAVAVKPMPTFIVNIGDQIQT 261
PQPDLTYGLPGHIDPNLIT^{|||}VLLQD-DVPGLQVLRKG-KWLPVSPIPNTFIVKIGDQMQ-- 259
PQPDLTYGLPGHTDPNLIT^{|||}VLLQD-DVPGLQVLRNG-KWLPVSPIPNTFIVNIGDQMQ-- 265

PQPELTYGLPGHKDPN^{|||}AVT^{|||}LLQD-GVSGLQVQRGG-RWAVAVNPVPNALVINIGDQLQ-- 266
PQPELTYGLPGHKDPN^{|||}AIT^{|||}LLQD-GVSGLQVQRNG-RWAVAVNPVPDALVINIGDQIQT 266
PQPELTYGLPGHKDPN^{|||}AIT^{|||}LLQD-GVSGLQVQRDG-RWAVAVNPVPNALVINIGDQLQ-- 266

S.bicolor_Sb06g026350
 Z.mays_GRMZM2G050234
 G.max_Glyma03g42250
 G.max_Glyma16g01990
 G.max_Glyma07g05420
VvDLO1
 R.communis_30076.t000026
 AlDLO1
 AtDLO1
 AlDLO2
 AtDLO2
 C.sativus_Cucsa.193360
 C.papaya_evm.TU.sup_37.106
 E.grandis_v1_0.017927m.g
 E.grandis_v1_0.017897m.g
 E.grandis_v1_0.047536m.g
 E.grandis_v1_0.017895m.g
 E.grandis_v1_0.017876m.g
 E.grandis_v1_0.015926m.g
VvDLO2
 C.clementina_0.9_014263m.g
 P.persica_ppa008100m.g
 P.persica_ppa008091m.g
 R.communis_30068.t000102
 M.esculenta_4.1_029834m.g

PQPELTYGLPGHKDPNAITLLLQD-GVSGLQVQRGG-RWVAVN PVPDALVINIGDQMQ--	266
PQPELTYGLPGHKDPNAITLLLQD-GVSGLQVQRGG-RWVAVN PVPNALVINIGDQMQ--	266
PEPELTYGLPGHTDPVTITILLQD-EVPGQLQVLKDG-KWVAVNPIPNTFVVNVGDQIQ--	269
PEPELTYGLPAHDPNAITILLQN-QVPGQLQVLHDG-KWLTVNPVPNTFIVNIADQIQ--	263
PEPELTYGLPAHDPNAITILLQN-EVPGQLQVLYDG-KWLTVNPVPNTFIVNIGDQIQ--	263
PQPELTFGGLPGHADPNALTILLQD-DVPGQLQVLKDG-KWVAIHPNTFIVNIGDQIQ--	264
PQPELTYGLPVHADPNVITILLQD-DVPGQLQVLKDG-KWVAVSPVHTFIVNIGDQIQ--	264
PEPELTYGLPGHKDPVTITVLLQD-QVSGLQVFKDN-KWVAVNPIPNTFIVNIGDQMQ--	266
PEPELTYGLPGHKDPVTITVLLQD-QVSGLQVFKDD-KWVAVSPIPNTFIVNIGDQMQ--	265
PQPELTYGLPGHKDANLITVLLQD-EVSGLQVFEDG-KWIAVNPIPNTFIVNLGDQMQ--	266
PQPELTYGLPGHKDANLITVLLQD-EVSGLQVFKDG-KWIAVN PVPNTFIVNLGDQMQ--	263
PQPDLYGLPCHTDPNLITLLLQD-QVPGQLQVHRDG-AWVALNPIPNTFIINI GDQMQ--	267
PEPELTYGLPGHTDPNLITVLLQD-DVPGQLQVLRNG-KWAVANPIPNTFIINI GDQMQ--	264
PQPELTYGLPGHTDQN LITILLQD-EVPGQLQVLRDG-KWIAVNPIPNTFIVNI GDQMQ--	266
PQPELTYGLPGHTDRNLITILLQD-DVPGQLQVLRDG-KWIAVNPIPNTFIVNI GDQMQ--	266
PQPELTYGLPSHTDPNLITILLQD-DVPGQLQVLRNG-KWAVANPIPNTFIVNI GDQMQ--	289
PQPELTYGLPGHTDPNLITILLQD-DVPGQLQVLRNG-KWAVANPIPNTFIVNI GDQMQ--	266
PQPELTYGLPGHTDPNLITILLQD-DVPGQLQVLRNG-KWAVANPIPNTFIVNI GDQMQ--	266
PQPELTYGLPGHTDPNLITILLQD-DVPGQLQVLRNG-KWAVANPIPNTFIVNI GDQMQ--	266
PQPELTYGLPGHTDCSLITVLLQD-DVPGQLQVLRNG-KWVSVNPIPNSFIVNI GDHMQ--	265
PQPELTYGLPGHTDPNLITLLLQD-DVPGQLQVLRDG-NWVPVNPIPSTFIVNI GDQMQ--	270
PEPELTYGLPGHTDCNLITILLQD-DVAGLQVLRNG-KWAVANPIPNTFIVNI GDMMQ--	264
PEPELTYGLPGHTDCNLITILLQD-DVAGLQVLRNG-KWAVANPIPNTFIVNI GDMMQ--	264
PQPELTYGLPGHTDPNLITILLQD-HVPGLQVLRNG-KWIAINPIPSTFIVNI GDQMQ--	263
PQPELTYGLPESHDPNLITILLQD-QVPGQLQVLRNG-KWAVADPIPNTFIVNI GDQMQ--	264

* : * : * : * * . : * : * . * * : * . * . : * * : * : * : * : * : * :

DMR6

B.distachyon_Bradi5g19240

O.sativa_Os04g49194

O.sativa_Os10g39140

S.bicolor_Sb01g030560

ZmFNSI-1/ZmDMR6

B.distachyon_Bradi1g77040

O.sativa_Os03g03034

S.italica_Si036512m.g

S.bicolor_Sb01g049030

Z.mays_GRMZM2G475380

A.coerulea_v1.008143m.g

E.salsugineum_TP2g22820

C.rubella_006g21660

AtDMR6

AlDMR6

C.sativus_Cucsa.273300

SlDMR6

M.guttatus_mgv1a009622m.g

VvDMR6.1

C.papaya_16416436

VvDMR6.2

R.communis_29866.t000021

M.truncatula_Medtr3g122530

G.max_Glyma04g227900

G.max_Glyma06g137000

G.max_Glyma06g14190

E.grandis_v1_0.018520m.g

E.grandis_v1_0.018494m.g

E.grandis_v1_0.018496m.g

P.persica_ppa008269m.g

C.clementina_0.9_015118m.g

P.persica_ppa022381m.g

P.persica_ppa019415m.g

C.clementina_0.9_032642m.g

C.clementina_0.9_012078m.g

DLO

B.distachyon_Bradi5g19250

O.sativa_Os04g49210

S.italica_Si010491m.g

	ALSNGAYKS VWHRAVVNAAQERMSVASFLCPC	289
	ALSNDAYKS VWHRAVVNPVQERMSVASFLCPC	291
	ALSNGKYRS VWHRAVVNSDRERMSVASFLCPC	294
	ALSNGQYRS VWHRAVVNSDRERMSVASFLCPC	288
	ALSNGQYRS VWHRAVVNSDRERMSVASFLCPC	288
	ALSNGRYKS VWHRAVVNSDRPRMSIASFLCPC	288
	ALSNGRYKS VWHRAVVNSDKARMSVASFLCPC	288
	ALSNGRYKS VWHRAVVNSDRPRMSVASFLCPC	288
	ALSNGRYKS VWHRAVVNSDRPRMSVASFLCPC	288
	CSC LALPLFPPSHLLSAPGLHYCTAPAQALSNGRYSVWHRAVVNADRPRMSVASFLCPC	318
	ALSNGNYAS VWHRATVNTDRERISVASFLCPA	290
	ALSNGVYKS VWHRAVTNTDKPRLSVASFLCPA	289
	ALSNGVYKS VWHRAVTNTENPRLSVASFLCPA	289
	ALSNGVYKS VWHRAVTNTENPRLSVASFLCPA	289
	ALSNGVYKS VWHRAVTNTENPRLSVASFLCPA	289
	ALSNGVYKS VWHRAVVNVDKPRLSVASFLCP	277
	AVSNGKYRS VWHRAIVNSDQARMSVASFLCPC	289
	ALSNGKYKS VWHRAVVNADKARLSVASFLCPC	288
	AVSNGKYKS VWHRAVVNAESERLSVASFLCPC	290
	AVSNGKYKS VWHRAVVNSDKVRLSIASFLCPC	289
	ALSNGKYRS VWHRATVNVGKARMSIASFLCP	289
	ALSNGRYKS VWHRAIVNADRERMSIASFLCPC	289
	ALSNGLYKS VWHRAIVNAEKPRLSVASFLCPD	289
	ALSNGLYKS VWHRAVVNVEKPRLSVASFLCPN	289
	ALSNGLYKS VWHRAVVNVEKPRLSVASFLCPN	289
	ALSNGLYKS VWHRAVVNVEKPRLSVASFLCPN	289
	ALSNGRYKS VWHRAIVNADKPRMSIASFLCP	289
	ALSNGRYKS VWHRAIVNADKPRMSIASFLCP	289
	ALSNGRYKS VWHRAIVNADKPRMSIASFLCP	289
	ALSNGIYRS VWHRATINTDRARLSVASFLCPQ	289
	ALSNGRYKS VWHRAIVNAEKARMSVASFLCPN	289
	VVSND DRYKSVLHRAVVNCDKERISIPTFYCPS	293
	VVSND DRYKSVLHRAVVNCDKERISIPTFYCPS	293
	VLSND DRYKSVLHRALVNCDKERISIPTFYCPS	291
	VLSND DRYKSVLHRALVNCDRERISIPTFYCPS	297
	ALSND DRYKSVLHRVIVNSESERISVPTFYCPS	298
	ALSND DRYKSVLHRVIVNSESERISVPTFYCPS	298
	ALSND DRYKSVLHRVIVNSESERISVPTFYCPS	298

S.bicolor_Sb06g026350	-----	ALSNDRYKSVLHRVIVNSESERISVPTFYCPS	298
Z.mays_GRMZM2G050234	-----	ALSNDRYKSVLHRVIVNSESERISVPTFYCPS	298
G.max_Glyma03g42250	-----	VISNDKYKSVLHRAVVNCNKDRISIPTFYFPS	301
G.max_Glyma16g01990	-----	VISNDRYKSVLHRALVNCEKERMSIPTFYCPS	295
G.max_Glyma07g05420	-----	VISNDRYKSVLHRALVNCEKERMSIPTFYCPS	295
VvDLO1	-----	VLSNDCYKSAVHRAVVNCQKERISIPTFYCPS	296
R.communis_30076.t000026	-----	VISNDRYKSVLHRAVVNSNKERISIPTFYCPS	296
AlDLO1	-----	VISNDKYKSVLHRAVVNTAKERLSIPTFYFPS	298
AtDLO1	-----	VISNDKYKSVLHRAVVNTENERLSIPTFYFPS	297
AlDLO2	-----	VISNDKYKSVLHRAVVNIDKERISIPTFYCPS	298
AtDLO2	-----	VISNEKYKSVLHRAVVNSDMERISIPTFYCPS	295
C.sativus_Cucsa.193360	-----	VLSNDRYKSVLHRAVVNNATERISIPTFYCPS	299
C.papaya_evm.TU.sup_37.106	-----	VISNDKYKSVVHRAVVNSERERISIPTFYCPS	296
E.grandis_v1_0.017927m.g	-----	VISNDKYKSILHRAVVNCDRERISIPTFYCPS	298
E.grandis_v1_0.017897m.g	-----	VISNDKYKSILHRAVVNCDRERISIPTFYCPS	298
E.grandis_v1_0.047536m.g	-----	VISNDKYKSVLHRAVVNRTERISIPTFCCPS	321
E.grandis_v1_0.017895m.g	-----	VISNDKYKSVLHRAVVNCNTERISIPTFYCPS	298
E.grandis_v1_0.017876m.g	-----	VISNDKYKSVLHRAVVNCNTERISIPTFYCPS	298
E.grandis_v1_0.015926m.g	-----	VISNDKYKSVLHRAVVNCNTERISIPTFYCPS	298
VvDLO2	-----	VISNDRYKSVLHRAVVNCNKDRISIPTFYCPS	297
C.clementina_0.9_014263m.g	-----	VLSNDRYKSVLHRAVVSRDKERISIPTFYCSS	302
P.persica_ppa008100m.g	-----	VISNDKYKSVLHRAVVNCNSERISIPTFYCPS	296
P.persica_ppa008091m.g	-----	VISNDKYKSVLHRAVVNCKSERISIPTFYCPS	296
R.communis_30068.t000102	-----	VISNDRYKSVLHRAVVNSYERISIPTFYCPS	295
M.esculenta_4.1_029834m.g	-----	VISNNRYKSVLHRAVVNSDKERLSIPTFYCPS	296

. : * * * * * . . . * : * : : *

DMR6

B.distachyon_Bradi5g19240
 O.sativa_Os04g49194
 O.sativa_Os10g39140
 S.bicolor_Sb01g030560
 ZmFNSI-1/ZmDMR6
 B.distachyon_Bradi1g77040
 O.sativa_Os03g03034
 S.italica_Si036512m.g
 S.bicolor_Sb01g049030
 Z.mays_GRMZM2G475380
 A.coerulea_v1.008143m.g
 E.salsugineum_TP2g22820
 C.rubella_006g21660
 AtDMR6
 AlDMR6
 C.sativus_Cucsa.273300
 SlDMR6
 M.guttatus_mgv1a009622m.g
VvDMR6.1
 C.papaya_16416436
VvDMR6.2
 R.communis_29866.t000021
 M.truncatula_Medtr3g122530
 G.max_Glyma04g227900
 G.max_Glyma06g137000
 G.max_Glyma06g14190
 E.grandis_v1_0.018520m.g
 E.grandis_v1_0.018494m.g
 E.grandis_v1_0.018496m.g
 P.persica_ppa008269m.g
 C.clementina_0.9_015118m.g
 P.persica_ppa022381m.g
 P.persica_ppa019415m.g
 C.clementina_0.9_032642m.g
 C.clementina_0.9_012078m.g

DLO

B.distachyon_Bradi5g19250
 O.sativa_Os04g49210
 S.italica_Si010491m.g

NSAVIGPAAKLVGD---GDEPVYRSYTYDEYYNKFWSRN-LDQEHCLELFRGQK-----	339
NSAVISPARKLVAD---GDAPVYRSFTYDEYYKKFWSRN-LDQEHCLELFKGQ-----	340
NSVELGPAKKLITD---DSPAVYRNNTYDEYYKKFWSRN-LDQEHCLELFRT-----	342
NHVVLGPAKKLVTE---DTPAVYRSYTYDEYYKKFWSRN-LDQEHCLELFRT-----	336
NHVVLGPARKLVTE---DTPAVYRNNTYDKYYAKFWSRN-LDQEHCLELFRT-----	336
NSVVLGPAEKLVGD---ASPAVYRNNTYDEYYKKFWSRN-LDQEHCLELFRT-----	336
NDVLIGPAQKLITD---GSPAVYRNNTYDEYYKKFWSRN-LDQEHCLELFRTTPTDTS	342
NDVRIGPAAKLVGE---GAPAVYRDYTYAEYYYGKFWSRN-LDQEHCLELFRT-----	336
NDVRIGPAAKLVTG---DTPAVYRDYTYAEYYYAKFWSRN-LDQEHCLELFRT-----	336
NDARIGPAARLLTD---GTPAVYRDYTYAEYYYAKFWSRN-LDQEHCLELFRTPTS	369
NDAAIICPAV-----KDGSPSMYKKFTYDEYYKKFWSGN-LDQQHCLELFKE-----	335
DCAVISPAKPLWEDEEDEAKPMYRDYTYAEYYYKKFWSRN-LDQEHCLENFLNH	341
DCAVMSPAKSLWEAEDSETKPIYRDFTYAEYYYKKFWSRN-LDQEHCLENF-----	338
DCAVMSPAKPLWEAEDDETNPVYKDFTYAEYYYKKFWSRN-LDQEHCLENFLNN	341
DCAVMSPAKPLWEAEDNETKPVYRDFTYAEYYYKKFWSRN-LDQEHCLEYFRNN	341
DDALITPAPLSSQ----PSPIYRPFTYAQYYNTFWSRN-LDQQHCLELFKNHPP-----	326
DSAKISAPKLLTED---GSPVIYQDFTYAEYYYKKFWSRN-LDQQHCLELFKN-----	337
DSANISAPKGLTGG---EDPAVYRDYTYNEYYYKKFWSRN-LDQEHCLELFKN-----	336
NDAVIGPAKPLTED---GSAPIYKNFTYAEYYYKKFWGRD-LDQEHCLELFKN-----	338
DDAVISPPKLLTAD---GSVAIYRDFTYAEYYYKKFWSRN-LDQEHCLELFRNK	338
DDALISPARALTDE---GSAAIYRSFTYAEYYYKKFWSRN-LDQEHCLEVFKN	337
DDALISPAKPLTEG---ESGAVYRDFTYAEYYYKKFWSRN-LDQEHCLELFKN	337
NEALICPAKPLTED---GSGAVYRGFTYPEYYYSKFWSRD-LEKEHCLEFFKNN-----	338
DEALISPAKPLTEG---GSEAIYRGFTYAEYYYKKFWSRN-LDQEHCLEFFKKNK	338
DEALISPAKPLTEH---GSEAVYRGFTYAEYYYKKFWSRN-LDQEHCLEFFKKNK	338
DEALISPAKPLTEH---GSEAVYRGFTYAEYYYKKFWSRN-LDQEHCLELFKNK	338
NDALISSPVSLLDN---GCGPTYRDFTYAEYYYKKFWSRN-LDQEHCLELFKNQA	339
DDALISSPVSLLDN---GCGPTYRDFTYAEYYYKKFWSRN-LDQEHCLELFKNQA	339
DDALISSPVSLLDN---GCGPTYRDFTYAEYYYKKFWSRN-LDQEHCLELFKNQA	339
DDALISPAKALTDD---GSAAIYRGFTYTYEYYKKFWTRD-LNQEHCLELFKTDO	339
NDAMISPPKALTED---GSGAVYRDFTYAEYYYSKFWSRN-LDQEHCLELFKN-----	337
YDAVMEPAPQLVDD--H-HPPLYRSFTYAEFYEKFWDRG-LNTRSSLDFQTTSHA	345
YDAVMEPAPQLVDD--H-HPPLYRSFTYAEFYEKFWDRG-LNTRSSLDFQTTSHA	345
PDAVIAPAKDLIDER---HP-----KFWNRG-LVDECCLDLFKASTA	329
PDAVIAPAKDLIDER---HPAVYKNFTYAEYYYQKFWRNG-L-DERCLDLFKASTA	347
PDAVVAPAEALVDG---S-HPLAYRPFTYQEYYEEFWNMG-LESASCLDRFRPM-----	348
PDAVIAPAGALVDGA-L-HPLAYRPFTYQAYYDEFWNMG-LQSASCLDRFRPNQAV	352
PDAVIAPAGALVDD--A-HPLAYRPFTYQEYYDEFWNMG-LQSASCLDRFRPG-----	347

S.bicolor_Sb06g026350	PDGVIAPADALVDD--A-HPLAYRPFTYQEYYDEFWNMG-LQSASCLDRFRPGGSIE-	351
Z.mays_GRMZM2G050234	PDAVIAPADALVDD--G-HPLAYRPFTYQEYYDAFWNMG-LQSASCLDRFRPGGSLE-	351
G.max_Glyma03g42250	NDAIIGPAPQOLIHHH-H-HPPQYNNFTYNEYQQNFWNRG-LSKETCLDIFKA-----	350
G.max_Glyma16g01990	PDALIKPAPQLVDK--E-HPAQYTNFTYREYYDKFWIRG-LSKETCVDMFKAQD-----	345
G.max_Glyma07g05420	PDALIKPAPKLVDN--E-HPAQYTNFTYREYYDKFWNRG-LSKETCVDMFKAQD-----	345
VvDLO1 (G302E)	PDAAIGPAPGLVDH--G-HPALYRKFTYSEYFGKFWNRG-LATQSCLDMFKT-----	344
R.communis_30076.t000026	PDAAIGPAPPLVDN--H-HPLLYTNFTYSQYYHKFWNRG-LATHTCLDMFKK-----	344
AlDLO1	TDAVIGPAHELNEQ-E-SLAVYRTFPFVEYWDKFWRNS-LATASCLDAFKASTT-----	350
AtDLO1	TDAVIGPAHELNVNEQ-D-SLAIYRTYPFVEYWDKFWRNS-LATASCLDAFKAPTT-----	349
AlDLO2	EDAMIGPAQELINEE-EDSHAIYRNFTYAEYFEKFWDTA-FATESCIDSFKASTA-----	351
AtDLO2	EDAVISPAQELINEE-EDSPAIIYRNFTYAEYFEKFWDTA-FDTESCIDSFKASTA-----	348
C.sativus_Cucsa.193360	PEAMIGPAKELIHDE---HRPAFRNFTYSEYYQTFWSGE-LDTRRCCLDLFRI-----	347
C.papaya_evm.TU.sup_37.106	LDAVIGPAH-----RPSVYRNFSYCEYYSKFWRSRSSLTAQACLDMFKA-----	339
E.grandis_v1_0.017927m.g	PEALIGPAQGLIDHD---NPavyRSFTYEEYYHKFWNRG-LRTECCCLDMFKIPSA---	349
E.grandis_v1_0.017897m.g	PEALIGPAQGLIDHE---HPavyRSFTYEEYYHKFWNRG-LRTECCCLDMFKIPSA---	349
E.grandis_v1_0.047536m.g	PEGLIQPAQGLIDHE---HPPVYRSFTWEEFYQKFYHRG-LRTECCCLDMFKIPSA---	372
E.grandis_v1_0.017895m.g	PEGLIRPAQGLIDHE---HPavyKSFTYEEYYHKFWNRG-LRTECCCLDMFKIHS---	349
E.grandis_v1_0.017876m.g	PEGLIRPAQGLIDHE---HPavyRSFTYEEYYHKFWNRG-LRTECCCLDMFKIHS---	349
E.grandis_v1_0.015926m.g	PEGLIRPAQGLIDHG---HPavyRSFTYEEYYHKFWNRG-LRTECCCLDMFKIPSA---	349
VvDLO2	PDAVIGPSPELVDDD---HPavyRNFTCEEYYTQFWNRG-LATESCLDTFKASTT-----	348
C.clementina_0.9_014263m.g	PDAVIGPAKGLVDQD---HPavyRDFTYAEYYYKKFWNRG-LATECCLEMFKASSTV--	354
P.persica_ppa008100m.g	PDAVIGPAKDLISHD---QPAMYRNFTYAEYFEKFWRNG-LATECCCLDLFKPN-----	345
P.persica_ppa008091m.g	PDAVIGPAKDLISHD---QPAMYRNFTYAEYFEKFWRNG-LATECCCLDLFKPN-----	345
R.communis_30068.t000102	PDAVIGPAKDLIDPD---HPAAAYREFTYAEYYYEKFWDRG-LAKECCCLDLFKTSTA---	346
M.esculenta_4.1_029834m.g	SDAVIGPAKDLIDND---HPavyKHFTYAEYYYEIFWNRG-LEKECCCLDLFKISSA---	347

: * : : . : : * :