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**Supporting information for article:**

**The *BAM7* gene in *Zea mays* encodes a protein with structural and catalytic properties similar to *Arabidopsis BAM2***

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**Alignment of BAM1, BAM2, BAM27, and BAM7 from eudicots** Signature sequence

elements used in Figure 1 are designated following the color scheme used in Figure

1. Accession numbers are listed in Supplementary Table S1.





Beta1	1	.	.	.	.	.	MAMSLTHQIGALS.
Daucus1	1	.	.	.	.	.	MAMSFSQLGGIA.
Helianthus1	1	.	.	.	.	.	MAMSLNQIGAIS.
Sesamum1	1	.	.	.	.	.	MAMS LPHQIGAIS.
Coffea1	1	.	.	.	.	.	MAMS MPHQIGALA.
Camelinal	1	.	.	.	.	.	MALNI SHQLGVLA.
Fragaria1	1	.	.	.	.	.	MAFSITHQIGALA.
Eucalyptus1	1	.	.	.	.	.	MALSMTHQIGTLA.
Quercus1	1	.	.	.	.	.	MALSMTHQIGALA.
Citrus1	1	.	.	.	.	.	MALNLTHQIGTLA.
Vitis1	1	.	.	.	.	.	MAAMSITHQMG A IS.
Ricinus1	1	.	.	.	.	.	MAMNI THQIGALA.
Theobroma1	1	.	.	.	.	.	MALNLASQIGTLA.
Glycine5							
<i>Arabidopsis7</i>	69	RSRPLEEKERTKLRERHRRAITARILAGLRRHGNYNL	R	LRV	RADINDVIAALAREAGWVVL	P	
Helianthus7	83	RCRPTEEKERTKLREQRRAITAKILAGLRRHGNYNL	R	LRV	RADINDVIAALAREAGWVVL	P	
Nelumbo27	75	RCRPKEEKERTKLRERHRRSITARILAGLRRHGNYNL	R	LRV	RADINDVIAALAREAGWIVL	P	
Aquilegia27	95	RCRPREEEKERTKLRERHRRAITARILAGLRRHGNYNL	R	LRV	RADINDVIAALAREAGWVVL	P	
Macleaya27	37	RCRPKEEKERTKLRERHRRAITARILAGLRRHGNYNL	R	LRV	RADINDVIAALAREAGWVVL	P	
Beta7	77	RSRPLIEEKERTKLRERHRRAITARILAGLRRHGYN	L	RV	RADINDVIAALAREAGWVVL	P	
Daucus7	76	RCRPMEEKERTKLREQRRAITAKILTGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Eucalyptus7	78	RSRPLEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Fragaria7	82	RCRPKEEKERTKLREQRRAITAKILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Sesamum7	86	RCRPQE EKERTKLREQRRAITAKILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Coffea7	76	RCRPQEEKERTKLREQRRAITAKILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Camellia7	77	RCRPIEEKERKKI RERQRRAVTAKILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Vitis7	77	RCRPVEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVISALAREAGWVVL	P	
Quercus7	70	RCRPLEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Ricinus7	83	RSRPLIEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Theobroma7	80	RSRPLIEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Citrus7	81	RSRPLIEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWVVL	P	
Sesamum2	1	.	.	.	.	.	MAV.
Oryza27	47	RGRAREEKERTKLREQRRAITARILAGLRRHGNY	N	LRV	RADINEVIAALAREAGWVVL	P	
Setaria27	58	RRRAREEKERTKLREQRRAITGRILAGL RQHGNY	S	LR	RADINEVIAALAREAGWVVL	P	
Panicum27	61	RRRAREEKERTKLREQRRAITGRILAGL RQHGNY	S	LR	RADINEVIAALAREAGWVVL	P	
Sorghum27	63	RRRAREEKERTKMREQRRAITGRILAGL RQHGNY	S	LR	RADINEVIAALAREAGWVVL	P	
Zea27	50	RRRAREEKERTKMREQRRAITGRILAGL RQHGNY	R	LR	RADINEVIAALAREAGWVVL	P	
Brachypodium27	51	GGRAREEKERTKLREQRRAITGRILAGLRRHGNY	S	LR	RADINEVVAALARDAGWVVL	P	
Aegilops27	49	RGRGREGEEKERTKARER RRRAVTGRILAGLRRHGGF	G	LRS	RADVNEVVAALARHAGWVVL	P	
Amborella27	72	RCRPKEEKERTKLRERHRRAITARILAGLRRHGNY	N	LRV	RADINDVIAALAREAGWMVLP		
Nymphaea27	106	RSRPKEEKERTKLRERHRRAITARI SGLRRHGNY	N	LRV	RADINDVIAALAREAGWMVLP		
Beta2	1	.	.	.	.	.	MATT
Helianthus2	1	.	.	.	.	.	MAIT
Camellia2	1	.	.	.	.	.	MAIS
Coffea2	1	.	.	.	.	.	MP EMALQ
Daucus2	1	.	.	.	.	.	MSI SSFS
Eucalyptus2	1	.	.	.	.	.	MA.P
Ricinus2	1	.	.	.	.	.	MA.V
Fragaria2	1	.	.	.	.	.	MA.L
Arabidopsis2	1	.	.	.	.	.	MA.I
Vitis2	1	.	.	.	.	.	MA.F
Citrus2	1	.	.	.	.	.	MA.I
Quercus2	1	.	.	.	.	.	MA.I
Theobroma2	1	.	.	.	.	.	MKM V.V

Beta1	14	.GTPVTI[EAAATTNTGE...TSATLS.....T\$A...VWKSPA..P[LKC.....
Daucus1	13	.GAPITAE\$GSIISGE.AS...KA.....T\$VS...AWKSPATT[LRC.....
Helianthus1	13	.GTPIPTE\$AGG...E.TTTAVVS.....A\$A...VWRSPPP.ANIRV.....
Sesamum1	14	.GSPLAADAGGVSGEA.PSSA...T.....V\$SA...VWRVPVATN[LRV.....
Coffea1	14	.GTPIAAE\$GGLTGEG.AQSAATVS.....T\$A...VWRSPV.TN[LRV.....
Camelinal	14	.GTPIKSGEMTDSSIL...SVSPPS.....ARM..MMS.....
Fragarial	14	.GTPISVTEPNKSSGE...STASVT.....A\$A...VRKSPA.AGLTC.....
Eucalyptus1	14	.GTPIQAESGSGAGEP...SMATVS.....AAA..VWKSPA.PSIRC.....
Quercus1	14	.GTPVPLEGTNTNSTE...TTATVC.....AAS..VWKSPA.SS[LRC.....
Citrus1	14	.GTPIQMDTGVS.GD...STGTVN.....A\$A...VWKPV.TD[LRC.....
Vitis1	15	.GTPVVSE\$GNGT.AE...STAALS.....AAA..VWKLPL.PAIRC.....
Ricinus1	14	.GTPISTEPIPS...ESTAT.....V\$SA...VWKPT.PNARC.....
Theobroma1	14	.GTQIPTEVTNGE.QL...SSGTVS.....A\$A...VWRAPA.AN[LRC.....
Glycine5		
Arabidopsis7	129	DGTTFPSKSQGTPKTGGSSAVAAGS.....SASHI.ASQQTSPPA[L.....RV
Helianthus7	143	DGTTFPS\$QGVRPATGASTTVVT.....S\$TSLP.LQQNQVAS[L.....RG
Nelumbo27	135	DGTTFPS\$RNQGARPAGAPSNAATSSSH.....MMP..VQTPPA.....STKG
Aquilegia27	155	DGTTFPS\$RSGQTRPVALATSSNAL...VTTSPSPSSPQLIPTIVQSPNASFRGGGGGG
Macleaya27	97	DGTTFPS\$RSGQSRPATSNAAMATLPTQIVSTQNTPAS.....PRGV
Beta7	137	DGTTFPS\$RSGQSRPGNPSVPAAMSSP.....A\$SQM.LPQQTQSATE.....KG
Daucus7	136	DGTTFPS\$RSGQTKPAAVPTPTV..VTS.....S\$TQM.TPQQTSPAS[L.....GG
Eucalyptus7	138	DGTTFPS\$RSGQSKPISGTS.AA..VTP.....PSSEM.VLQQAPLTS[L.....RG
Fragaria7	142	DGTTYPS\$NNQGPRPA.GVNSTA..VTS.....S\$SQM..VSQPTPV\$[L.....KG
Sesamum7	146	DGTTFPS\$RTQGSRPTGGASNTA..MTS.....A\$SQMP.AQHTSPTS[L.....GG
Coffea7	136	DGTTFPS\$RSGQARPVGTCSTV..VTS.....S\$SHIP.TQQTTPPIS[L.....RG
Camellia7	137	DGTTFPS\$VSGQTRPAGGASTTP..MTS.....T\$AHMPMQQQTPPAT[L.....GG
Vitis7	137	DGTTFPS\$RTQVPRPAGGTSTAV..VTS.....S\$SHL.VQQQTPPTS[L.....RG
Quercus7	130	DGTTFPS\$RSQ.GPRPMGSASAV..VTP.....S\$SHM.VSQQTPAAS[L.....RG
Ricinus7	143	DGTTFPS\$RSQ.GSRPAGGTSA..ATT.....S\$SHL.VSPQTPSAS[L.....KG
Theobroma7	140	DGTTFPS\$RSQ.GSRPAAAGTSAG..MTS.....S\$SQM.VSQPTPPPTS[L.....RG
Citrus7	141	DGTTFPS\$RSQLGSRRTAGGASSM..VTS.....S\$SHM.VSQQTTPSTS[L.....RG
Sesamum2	4	.NIHF\$.....LGA..RIS..ASS[LPII.SATV
Oryza27	107	DGTTFPS\$SSSVS...QPPPTQQQLQ.....PGRP.....SIA.APP[LPS\$PAPP
Setaria27	118	DGTTFPS\$SA....AAAAAQPGPRPVMV.....AAPLA.....LPTS.PALP
Panicum27	121	DGTTFPS\$SSPPPAAAAAQPAPRPVMV.....AAPLA.....LPL.PLPL[LPTS.PALP
Sorghum27	123	DGTTFPS\$SSSSAAVAAQP.ARPMV.....AAP.....SAT.PLAI[PAS.AA[P
Zea27	110	DGTTFPS\$SS.FAAVAAQP.PRPMV.....AAP.....SAT.PLAL[PAS.SALP
Brachypodium27	111	DGTTFPS\$SSHSQTPRPAVLVPVSAAPP.....PISSA.....SAS.AL.....APP
Aegilops27	109	DGTTFPS\$.HPQTPRPAVLAPAISLSS.....PSAAA.....AAL.PTL[PVS.SSSC
Amborella27	132	DGT.TFPS\$RPH...NARTAATP.STPT.....TSSPL..PASQLPPAA[LRGG.SATG
Nymphaea27	166	DGT.TLPPPTRSPHNTRSPAPA.PTVP.....TTPLM..VASQSPPASS.....LRGA
Beta2	5	SFH\$T\$LL\$SKVAPSS\$LSLRRRTVL.....SCTVSSQNG.PIQL
Helianthus2	5	NAS..SILKCATTMMAFPSSAAILLSRHP.....PSAL.....QFT[LPS..HHLI
Camellia2	5	SSI..QLFHSLRPHNALSSATMASS.P.....SSMVA..TL.....SLFAS..RKVN
Coffea2	8	QSF..N..LMIRPPSSSSSTMASQ.V.....VVGRR..QS.....LFL[LAS..SKFD
Daucus2	8	SSS..M..ACFSPLST.....R..RS.....L[LPS..PALN
Eucalyptus2	4	APA..PS.VLLATSGASC\$PDARAWR.....WSWSSLPRV.....GAAD
Ricinus2	4	SSH..QLLHCPSPYYSTASKAQS\$F.....LAS..ISTF
Fragaria2	4	LSL..QPFRCFTPRRPSN.....VSKTTMPA[L\$F..SPGL
Arabidopsis2	4	...RINHSVIPVSVKL.....GAP.....T..RVSARSS[L\$F..SVGD
Vitis2	4	SPA..HFFQSVWTLN\$AHSNVRAWLSP.....PVV\$H..TLSASRRL\$SSP.....
Citrus2	4	SST..QFC\$DIILRAPGASSPITSSLS.....HKQ..TLFTSQ\$RVPVTF..HSLT
Quercus2	4	SSI..QFLHSLGP\$FNASFTTTTTA.....S\$S..KNTKTPRVS[L\$F..G
Theobroma2	6	SSV..RIFNSLKPPSASLTAYSTVH.....SRS.....

Beta1	48	...KVTRTGGDKT...	TTDMLSP	P
Daucus1	47	...AVRAPGG.ET	DRISPSP	P
Helianthus1	47	...SVQKQST.EA	DRLSPSP	P
Sesamum1	49	...SVQKTGME.M	DRVSPSP	P
Coffea1	51	...SVQKP.GDVER	VSPPLSSP	P
Camelinal	41	...SKPMN.RNY	KSHGTDPSP	P
Fragaria1	49	...KIQNPEGKE.TG	MLTPPMSP	C
Eucalyptus1	49	...RAQKP.DALDA	LSPPLSP	C
Quercus1	49	...KVQKTD.AVDF	SPSPPMSP	C
Citrus1	48	...AIQKPDL.	KDTMSP.PV	C
Vitis1	49	...RAGAE.IEG..LS	PPVSP	C
Ricinus1	44	...KIQKADTT.EQKSQ	PTSP	C
Theobroma1	48	...KTSQD.TVSPPSLTPPL	TPRSPGSRSP	L
Glycine5				
Arabidopsis7	171	VSSGLRSP.VELSS...	CRMKGVFTPAPSP	YDMLPIQSPE...LVGSVN...
Helianthus7	184	ISSTCQIGM.NDEA	CQMKGLYGPSS	SAYDTSASTHSQ...SSQMLGVEVD...G
Nelumbo27	176	VSSGFHST.VDYRS...	GRMKSVFMP	TSLPYQRSSSTRS...RTLGMVGDKG.QRIEN
Aquilegia27	211	ISPGIQNS.SDYNP...	YRLKTMFVP.CSTP	IDGSSNVIRSTSVAAMVGDRGERI.QD
Macleaya27	138	SPAGVRNS.VDYSS...	GRLKSVFVP.TPSP	YDGTTSSAQSRISTAAMVGDAGE.KT
Beta7	181	VCPGYQNS.VEYNA...	CQIKGVFVP.TASP	YDVSSSSHH...ASSTVGSRG.EGT
Daucus7	178	MSSSYQST.VEYNA...	CQMKDIFV.PSSP	YDVTNSTAPSQ...TSALLVEGL.DV
Eucalyptus7	179	ISSGYGSP.VDYNA...	SRMKGVYVPNSSP	YDSSSRGQSQ...ISSALGDGGEPL
Fragaria7	182	VTSGYPSS.VEHTA...	DHMKSVFMPGS	SPYDLPAl...NTADGG.DQT
Sesamum7	188	ISPGYKSA.VDYSA...	SHMKGVFVSTSSP	YDSSSGARSQ...SPAMIGDGGDL
Coffea7	178	ISSPYQNT.VEYNA...	CQMKSVFVP.TSSP	YDESSSIRTN...SSPLLGDGG.DV
Camellia7	180	ICSGYKSS.MEYNA...	CPTKGVFVP.TSS	SLYDASSSARSH..MSAMVGDG.GA
Vitis7	179	VSSGYRSS.VEYNA...	SRMKGVFVPASSP	YDVSPSSRS...SAVMGDRGG.QA
Quercus7	171	VTSGYQNS.GEYNA...	SSMKGVYMPNSSP	YDLSSSTRSQ...TPPMVGDGGE.H
Ricinus7	184	VSPGYRTS.VEYNP...	CR.LKGVFVP.TPSP	YADLSTSTQSP...TSVMITDGGE.QS
Theobroma7	181	VSSGYRTS.VDYNA...	CRMKGVFMP.TPSP	YDLSSSARSQ...SSGMVGDGGE.QT
Citrus7	183	VSSGYRSS.VEYNT...	CQMKGVFMP.TPSP	YDLSPPIAQSQ...P.SLVEDGRE.QT
Sesamum2	26	DRGLRST.GNRCS...	CKLGSGLVK...	GALL...R.....AAVG
Oryza27	148	LRGISISP.VAARP...	ISSIR.SSSS...	IRIIISP.PHA...L.....P
Setaria27	154	LRGI..SP.VAARP...	ISHRPAP...	ASSLLLSP.PRA...AGAA.AASSR.PPADDVP
Panicum27	167	LRGV..PP.VAARP...	ISHRPALALLPLP	SVLLSP.PRA...AGPA..ASSR.PPADDVP
Sorghum27	167	LRGI..AP.VAARP...	ISHRPAPA...	SALLVSP.PRA...T...AASR.PPADDVP
Zea27	153	LRGI..AP.VAARP...	ISHRPAPA...	FALLL.PPRA...A...AASR.PPADDVP
Brachypodium27	151	LRGIVSSPLAARP...	ISRRAAA.VAGP.SYSALRSCSSL...	S...SP.PRAAR.AVP
Aegilops27	153	APGIAVPP.LAARP...	ISRRAGCAPALRT...	AAA...S...SPFAVSRAVP
Amborella27	176	SGFRNS..VEYRP...	CR.LKGVFVP.T	SLAS.PRI...VAN...M.GDR
Nymphaea27	210	SGFRSS..VEYRP...	CR.LKGVF.TPT	.AASS.FDG...SSG...G.RIRPG.AGI
Beta2	43	SKSCGS..LSY...	...KTRR...	SAMVEDRG.E.RLETIS...
Helianthus2	44	L.....NS...	TNFTS...	LT.....PVSA
Camellia2	45	Y..G...HYCS...	CRFRRG.VF	VN.SN...ERTQDHSL.V
Coffea2	46	F..R...LP...	YSVRKLKCVF	AN.SATRA..LVRD..AGE.E.SVEDHHPIA
Daucus2	32	F..G...PADQ...	LTFRKAKLI...	S.NSARS..LSRVKCKD.E.KDEDHDV..
Eucalyptus2	39	WRSRGS..ARCSP...	RRAGDGR.LVA	GARRL...RTRAMVRKPFEDGRIAG
Ricinus2	33	C..CSS..SEFN.S...	CGFRASMV.SF	C..TRSQN...LAVVRGKK.Q.RTDNDSLID
Fragaria2	35	W..GS..PEFD.S...	RR.LR...	VGGGKYRR...LAVVS...AEG
Arabidopsis2	35	W..RGV..STF...	...V...	SGARPLV...LAKV.KLRA.E.STEEDRVPI
Vitis2	45	F..LIS..AQYNS...	RR.LNGDF.VSS	TVR..SPI...STKVTNGGE.KTEDHPM..
Citrus2	46	Y..CNV..TYCNA...	CRFKRTQFR...	T...LAAIGEWE.E.ETEDDPHGG
Quercus2	42	..RGS..VDFNM...	CS.LSPGF.FVSS	SSA.RSRA...WALVRDRGE.KTEDYPPVT
Theobroma2	32	..PSS..LDCNF...	CR.LKG.GF.VSS	SISGSCQL...RAIVRDKG.KRTEDHPLVG

Beta1	66	VSPCRS	PLRADLTAAC	QAFTTTMSQS DIA	TEKE
Daucus1	64	VSPV	MRGDLAAC	KAFDEAVVE	QG
Helianthus1	64	MSPVRG	GIRADLSVAC	QALMT EEEVVV	KE
Sesamum1	66	LSPVRG	GLRPDLSVAA	QALMSAPVTTE DV	QDRE
Coffea1	69	LSPVRA	GMRPDL SVAC	QAFATAVETETA V	E KV
Camelinal	59	MSPVLG	ATRADLSVAC	KAYAVETGVET	IEEQRS
Fragarial	69	RSPVLG	ATRPDL SVAC	QAYATEVEAAPVLE	HELR
Eucalyptus1	67	RSPVLG	GIRPDL SVAC	QAFAAEMEALP QAA	VREHKEVA
Quercus1	68	RSPVLG	ATRGDL SVAC	RAFATEVEAP PARG	VEYS
Citrus1	66	RSPVLS	SMRADLSVAC	RAFATEESPTAAA VTE FSEEVG GEM	
Vitis1	65	LSPVMG	GMRADLSVAC	QAFATEIEA	APAERE
Ricinus1	62	MSPILS	GMRADLSVAC	RAFAD VATLE	SIEERM
Theobroma1	75	MSPM	LRPDLSAAC	QAF TTLAPPE	TVEEEAAGVA
Glycine5	1				M . . .
Arabidopsis7	213	KAEGLVG		CSVDVINSK	QILEIIPN
Helianthus7	231	QDDPIIG		VSDTVGGR	QVD MRSK
Nelumbo27	226	.SL LG		SGADTV DGD	QVVDVPLK
Aquilegia27	263	SN SPLID		NCIDSII DDK	QIMDI PSK
Macleaya27	188	DN SPLIG		HCMDTV DN KELNP	EVMDI PMK
Beta7	229	DNHPLIG		SSV DAMGNK	QVVELPSR
Daucus7	225	QDDPIIG		GSMDAVDN R	QVVI IIPQR
Eucalyptus7	227	NTQAIIG		GSE SVD AAK	QIVDVF SK
Fragaria7	223	QSHPLIG		GSMDDVGDK	QIVDM PPK
Sesamum7	235	QNDPLLG		GSI GSVDNR	QVDMPTK
Coffea7	225	HNDPLLG		GSI DSDL DN K	QV D IS TK
Camellia7	227	EIHPLIG		GSM DTVD SK	KV IDV P QK
Vitis7	227	ENHPLIG		GSM DAV DDK	QV VDM PPK
Quercus7	218	ESHPLIG		GSM NTV DDK	QIVD L A PK
Ricinus7	232	ENHHLIG		GSL DAISEK	QMTAIFPK
Theobroma7	229	ESLPLIA		GSM EA VNNK	QVIDL PPK
Citrus7	230	EIQSHIG		GPV DAV S D K	QIADV PPK
Sesamum2	57	GSGNK		FAEQDGDS	FASWNQPE
Oryza27	181	DPLSLP	SMDP	Q	VP DLL P PR
Setaria27	199	DGGSS SHL	LA VPVNVPMDP AVAEDA AVA	K	QVPEVAPR
Panicum27	215	DGD S SHL	LA VPVPVAMDPATTEDA AVA	K	QVPEVAPR
Sorghum27	208	DGN S SHL	LA VPVP .MDPAA. EDGPVA	K	QVPDVA P R
Zea27	193	DGN S SHL	LA VPVPVPM DPAAAEDVPVA. KQ	L	QVPDVS PR
Brachypodium27	197	E DDA SPL	LA VPVPDDHGMGA . QDGDAGKQAGAACATTAV	VAVA	E PR
Aegilops27	193	EGGPA SPL	LA VPVPDDEDADAAMDGGDGGEQTGLAT	R	PAVAPF RP
Amborella27	211	GDKNDG SPL	IS	SCMETC DDK	QVLD VSGR
Nymphaea27	250	GDGGDH SSSLG		SCFP. GDDK	QVVDL P AR
Beta2	71	GSD	VKYDD	E S VESLEN E	EIVQTIPK
Helianthus2	58		ASN	D S VR TS DH	QV V . . ETV
Camellia2	72	G		DSTEIVD GQ	QAADK PPK
Coffea2	83	GDNDSS SP DGI		S ST NIND YN	QVVDGE LR
Daucus2	69		V		VSDT TH HQ
Eucalyptus2	81			GSV DASEDE	QVADL PIK
Ricinus2	76			NSV DSI DDN	QVSDI PVE
Fragaria2	64			S VV ENV GDE	QVAEVA QI
Arabidopsis2	67			DDD DSTDQ	LVED E IVH
Vitis2	86			D TV DDD N	KIADG P LK
Citrus2	83			D SV D A ADD M	KAVHLP PK
Quercus2	85			D SV D . DD	QV VST F QK
Theobroma2	76			D ST D . KV	D EN Q VM

Beta1	99	. YAVAAKDKEAKKGVPVYVMMPLDSVKMDNTINRRKAMN	A SLLA L K SAGVE GIMMD V WWG
Daucus1	88	RYARGGGAQDKGKGVPVYVMMPLDSVNMGNGLNRRKAM	S ASLQAL K SAGVE GIMMD V WWG
Helianthus1	93	HR.TGAGGVKETKGVPVYVMMPLDSVTMGNGVNRRKAM	N ASMQAL K SAGVE GVMMDC WWG
Sesamum1	99	YVVGGVSHKEDKKGVPVYVMMPLDSVTWNHTVNRKKA	M N ASLQAL K SAGVE GIMMD V WWG
Coffea1	101	HSPFESSTQKKEKGIPVFVMMPLDSVKMDNTVNRRKAM	N ASLQAL K SAGVE GIMMD V WWG
Camelinal1	92	YKEGGIGIVEKREGGGVPVFVMMPLDSVTMGNTVNRRKAM	K ASLQAL K SAGVE GIMID V WWG
Fragarial1	103	... . GH. . VEKINGVPVFVMMPLDSVTMNHTVNRKAM	N ASLQAL K SAGVE GIMMD V WWG
Eucalyptus1	105	PAA GSR. . EKGSGGVPFVMMPLDSVTMNNTVNRRKAM	N ASLQAL K SAGVE GIMMD V WWG
Quercus1	102	. RGGAQ. . DKKGEGVPVYVMMPLDSVTMNNTVNRRKAM	N ASLQAL K SAGVE GIMMD V WWG
Citrus1	106	YKQGGL. . QEKGNGVPVFVMMPLDSVTMSNTVNRKAM	D A S L R A L K SAGVE GVMMDC WWG
Vitis1	96	YRVGGT. . KAKGKGVPVYVMMPLDSVTMGNGVNRRKAM	K ASMQAL K SAGVE GVMMDC WWG
Ricinus1	95	YRDGGG. . KEEGKGVPVYVMMPLDSVTMNNGVNRRKAM	N ASLQAL K SAGVE GIMMD V WWG
Theobroma1	108	WKEGGR. . KEEKRGVPVYVMMPLDSVTYGNTLNRKKA	M N ASLHAL K SAGVE GIMVD V WWG
Glycine5	2	... ATSDSNMLNYVPVYVMIPLGVVNVDNFEDPDGLKE	Q L L Q L R A A G V D G V M V D V WWG
Arabidopsis7	237	... L T E Q D F S G T P Y V P V Y V M I PLGVINMK	C E L A D R D G L L K H L R I L K S I H V D G V K V D C WWG
Helianthus7	254	... L Q E R D F A G T P Y V P V Y V M I PLGVINMK	C E L V D P D N L L K Q L R I L K S I N V D G V M I D C WWG
Nelumbo27	247	... L Q E R D F A G T P Y V P V Y V M I PLGVINMK	C E L V D P D G L L K Q L R V L K S I N V D G I M V D C WWG
Aquilegia27	288	... M P E R D F A G T P Y V P V Y V M I PLGVINMK	C E L V D P D G L L K Q L R I L K A V N V D G V M V D C WWG
Macleaya27	217	... L Q E R D F A G S P Y V P V Y V M I PLGIINMK	S E L V D P D G L L K Q L R I L K S I N V D G V M V D C WWG
Beta7	253	... L H E H D F A G T P Y I P V Y V M I PLGVINMK	C E L T N P A G L L K Q L R I L K S I N V D G V M V D C WWG
Daucus7	249	... L Q E R D F A G T P Y V P V Y V M I PLGVINMK	C E L V D P D S L I N Q L R F L K A I N V D G V V I N A WWG
Eucalyptus7	251	... L P E R D F A A T P Y I P V Y V M I PLGVINVK	S E L V D P D G L L K Q L R I L K S L N V D G V T V D C WWG
Fragaria7	247	... L P E R D F A N T A Y I P V Y V M I PLGVINMN	C E L V D P D G L L K Q L R V L K S V N V D G V M V D C WWG
Sesamum7	259	... L Q D R D F A G T P Y V P V Y I M I PLGVVN	M N K S E L V D P D G L L K Q L K I L K S L K V D G V M V D C WWG
Coffea7	248	... L Q E R D F A G T P Y V P V Y V M I PLGIINMK	C E L V D S D G I I K Q L R V L K S I N V D G V M V D C WWG
Camellia7	251	... L Q E R D F A G T P C V P V Y V M I PLGVINMK	C E L N D P D G L A K Q L R V L K S V N V D G V M V D C WWG
Vitis7	251	... L Q E R D F A G T P Y I P V Y V M I PLGVIS	M K C E L V D P D G L L K Q L R I L K S V N V D G V M V D C WWG
Quercus7	242	... L P E R D F A G T S Y V P V Y V M I PLGVINMK	C E M V D P D G L L K Q L R V L K S V N I D G V M V D C WWG
Ricinus7	256	... L S E R D F A G T A F V P V Y V M I PLGVINMK	C E L A D P D G L L K Q L R V L K S S N V D G V I D C WWG
Theobroma7	253	... L P E H D F A G T P Y V P V Y V M I PLGIINMK	C E L I D P D G L L K Q L R A L K S I N V D G V M V D C WWG
Citrus7	254	... L P E R D F S G T P Y V P V Y V M I PLGVINLK	C E L C E L I D P D G L L K Q L R V L K S I N V D G V M V D C WWG
Sesamum2	80	... A H E R D F T N T P Y V P V Y V M I PLGIINME	C K L V D I S G L I N Q L R I L K S I N V D G V M V D C WWG
Oryza27	202	... P P E R D F A G T P Y V P V Y V M I PLGVVN	G N G E V V D A D V L V G Q L R V L K A A G V D G V M V D C WWG
Setaria27	236	... P P E R D F A G T P Y V P V Y V M I PLGVVN	V S G E V V D A D E L V G Q L R V L K A A G V D G V M V D C WWG
Panicum27	251	... P P E R D F A G T P Y V P V Y V M I PLGVVN	V N G E V V D A D E L V G Q L R V L K A A G V D G V M V D C WWG
Sorghum27	241	... P P E R D F A G T P Y V P V Y V M I PLGVVN	G N G E V V D A D E L V G Q L R V L K A A G V D G V M V D C WWG
Zea27	231	... P P E R D F A G T P Y V P V Y V M I PLGVVN	G N G E V V D A D E L V G Q L R V L K A S G V D G V M V D C WWG
Brachypodium27	242	... P P E R D F A G T P Y V P V Y V M I PLGVVN	V S G E V A D A D E L V G Q L R V L K A A G V D G V M V D C WWG
Aegilops27	238	... P P E R D F A G T P Y V P V Y V M I PLGVVS	V K G E V A E A D E L V A Q L R V L K A A G V D G V M V D C WWG
Amborella27	239	... L P E R N F A G T P Y V P V Y V M I PLGVINM	K C E V V D L D G L V K H L R I L K S I N V D G V M V D C WWG
Nymphaea27	277	... V K E R D F A G T P C V P V Y V M I PLGVINL	K C E L V D P D G L V K H L K A L K S A N V D G V M V D C WWG
Beta2	96	... L P E R D F A G T P Y V P V Y V M I PLALINM	N C E L V D P D G L V H N L M K Q L K V L K S I N V D G V M V D C WWG
Helianthus2	76	... S D E R D F A G T P H V P V Y V M I PLGM	I N L E C E L V D V D D L R D Q L R T L K S I N V D G V M V D C WWG
Camellia2	90	... L Q E R D F S G T S Y V P V Y V M I PLGA	I N M D C Q L L D Q D N L L Q L K I L K S V N V D G V M V D C WWG
Coffea2	111	... L P E R D F T G T A Y V P I Y V M I PLGVIN	M E C E L V N P D D L I N H L K I L K S I K V D G V M V D C WWG
Daucus2	79	... L Q E R D F S G T P Y V P V Y V M I PLEI	V N M E C E L V N A D D L N Q L K I L K S Q N V D G V M V D C WWG
Eucalyptus2	98	... I P E R D F A G T P Y V P V Y V M I PLGVVN	L Q C E L V D P E G L W N G L K I L K S A N V D G V M I D C WWG
Ricinus2	93	... V Y E R D F T G T A Y V P V Y V M I PLGVIN	M N C E L V D P E G L W N G L K I L K S A N V D G V M I D C WWG
Fragaria2	81	... V Q E R D F T G T P Y V P I Y V M I PLGVIN	M N S E V V E P E V L M D Q L R A L K S V G V D G V M V D C WWG
Arabidopsis2	84	... F E E R D F A G T A C V P V Y V M I PLGVID	M N S E V V E P E E L L D Q L R T L K S V N V D G V M V D C WWG
Vitis2	100	... L Q E R D F A G T P Y V P V Y V M I PLSVI	N I N C E L V D P D G L V H Q L R I L K S I N V D G V M V D C WWG
Citrus2	100	... L P E R D F A G T P Y V P V Y V M I PLGI	I D M N C E L V D P E I L V N Q L K I L K S I N V D G V M V D C WWG
Quercus2	99	... L Q E R D F T D T P Y V P I Y V M I PLGVV	S M N C E L L D P E G L M D Q L R I L K S V N V D G V M I D C WWG
Theobroma2	88	... E P E R D F A G T S Y V P V Y V M I PLDV	I D M K C E L V D P E G L L D Q L R I L R S V N V D G V M V D C WWG

Beta1	158	LVERDNPGEYNWGYYVELLEMAHKHGLKVQAVMSFHQCGGNVGDSVTIPPLPKWAVEEMHK
Daucus1	148	LVERDEPGVYNNWGYYQDLLELAHKFGLKVQAVMSFHQCGGNVGDSCTIPPLPKWVVEEMEK
Helianthus1	152	LVEREAPGEYNWGYYAELLEMMAKKHGLKVQAVMSFHQCGGNVGDSCTIPPLPKWVLEELNK
Sesamum1	159	LVEGEKEPGEYNWGYYSELLEMMAKKHGLKVQAVMSFHQCGGNVGDSCTIPPLPKWVVEIDK
Coffea1	161	LVERDEPGKYNNFGGYVELLEMAKKHGLKVQAVMSFHQCGGNVGDSCTIPPLPRWATEEIDK
Camelinal1	152	LVEKESPGTYNWGGYNEELLLEMMAKKILGLKVQAVMSFHQCGGNVGDSVTIPPLPQWVIIEEVDK
Fragaria1	157	LVERDAPGAYNWGGYNEELLLEMMAKKHGLKVQAVMSFHQCGGNVGDSCTIPPLPNWVVEEVNN
Eucalyptus1	163	LVERE.PGSYNWGGYAEELLEMMAKKHGLKVQAVMSFHQCGGNVGDSCTIPPLPKWAVEEVDK
Quercus1	159	LVEREAAAGSYNWGGYAEELLEMMAKKHGLKVQAVMSFHQCGGNVGDSVTIPPLPKWVGEENK
Citrus1	164	LVERDQPGRHYNWGGYSDLLLEMMAKRHGLKVQAVMSFHQCGGNVGDSVTIPPLPKWVVEEVDK
Vitis1	154	LVERDSPGTYNWGGYAEELLEMMAKQHGLKVQAVMSFHQCGGNVGDSCTIPPLPNWVVEINK
Ricinus1	153	LVEREGPGVYNWGGYIELLEMMAKRHGLKVQAVMSFHQCGGNVGDSCTIPPLPKWVVEIDR
Theobroma1	166	LVEREAPGAYNWGGYAEELLEMMAKKHGLKVQAVMSFHQCGGNVGDSCTIPPLPKWVVEIDK
Glycine5	59	IIEELKGPKQYDWRAYRSFLFQLVQECGLTLQAIMSFHQCGGNVGDIVNIPIPQWLDIGES
Arabidopsis7	294	IVEGHSPQEYNNWIGYRQLFQMVRDLNLKIQVLMSFHECGGNVGDDVCIPPLPHWVAEIGRT
Helianthus7	311	IVEAHVPQEYNNWKGYKRLFQMARELKFKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Nelumbo27	304	IVEAHAPQEYNNWSGYKRLFQIVRDLDFKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRN
Aquilegia27	345	IVEAHATPQEYNNWSGYKQLFQIVRELKLLKLQVVMMSFHECGGNVGDDVCIPPLPQWVAEIGRT
Macleaya27	274	IVEAHAPQEYNNWYGYKRLFQIVRDLKLKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRN
Beta7	310	IVEAHAPQEYNNWIGYKRLFQIVRDLKLKLQVVMMSFHECGGNFCDDVCIPPLPLWVAEIGRS
Daucus7	306	IVEAHGPQVYNNWSGYKRLFQVVRDLKLKLQVVLCFHECGGNLGDDVIIIPPLPNWVAEIGLT
Eucalyptus7	308	VVEAHAPQEYNNWNGYRRLFQMVRDLKFKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Fragaria7	304	VVEGHAPMDYNNWNGYRRLFQMVRDLKLKLQVVMMSFHECGGNVGDDVCITLPHWVAEIGRS
Sesamum7	316	VVEAHAPQEYNNWNGYRRLFQIVRELKMKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Coffea7	305	IVEAHVPQEYNNWNGYKRLFQIVREIKLKLQVVMMSFHECGGNIGDDVCIPPLPNWVAEIGRS
Camellia7	308	IVEAHAPQEYNNWNGYKRLFQIVRELKLLKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Vitis7	308	IVEAHAPQEYNNWNGYKRLFQIVRELKLLKLQVVLMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Quercus7	299	IVEAHAPQEYNNWSGYKRLFQMVRRELKLLKLQVVLMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Ricinus7	313	IVEAHAPQEYNNWNGYKRLFQMVRRELKLLKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Theobroma7	310	IVEAHAPPLEYNNWNGYRRLFQMVRRELKLLKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRS
Citrus7	311	IVEAHTPQDYNNWNGYKRLFQIVRALKLLKLQVVMMSFHECGGNVGDDVCIPPLPHWVAEIGRI
Sesamum2	137	IVEARGPRQYNNWGDYKRLFQIVRALKLLKLQVVMMSFHECGGNVGDDVIIIPLPQWVIIEIGTT
Oryza27	259	NVEAHRPQEYNNWTGYKRLFHMIRELKLLKLQVVMMSFHECGGNVGDDVSIPPLPHWVAEIGRS
Setaria27	293	NVEAHRPQEYNNWTGYKRLFQMIRELKLLKLQVVMMSFHECGGNVGDDVSIPPLPHWVAEIGRS
Panicum27	308	NVEAHRPQEYNNWTGYKRLFQMIRELKLLKLQVVMMSFHECGGNVGDDVSIPPLPHWVAEIGRS
Sorghum27	298	NVEAHRPQEYNNWTGYRRLFQMIRELKLLKLQVVMMSFHECGGNVGDDISIPPLPHWVIIEIGRS
Zea27	288	NVEAHKPQEYNNWTGYRRLFQMIRELKLLKLQVVMMSFHECGGNVGDDISIPPLPHWVIIEIGRS
Brachypodium27	299	NVEAQRPQEYNNWTGYKRLFQMIRELKLLKLQVVMMSFHECGGNVGDDVSIPPLPEWVIIEIGRS
Aegilops27	295	NVEAHRPQEYNNWAGYKRLFHIIIRDLKLLKLQVVMMSFHECGGNVGDDVSIPPLPEWVIIEIGKS
Amborella27	296	IVESHSPLEYDWHGYKKLFLFQIIRELKLLKLQVVMMSFHECGGNVGDDVCIPPLPHWVVEIGKS
Nymphaea27	334	IVEAHSPQKYNNWHDGYKRLFQIIHELNKLKLQVVMMSFHECGGNVGDDVCIPPLPHWIVEIGRS
Beta2	153	IVEAIAPQOYNNWTGYRKLFLQVLRDVGLKLQVVMMSFHCGGNVGDDVNIPPLPHWITEIGQS
Helianthus2	133	IVEANEAPQOYNNWKGYKQLFSIVRELDLKLLQVVMMSFHECGGNVGDDVHIPPLPKWIRDIGQE
Camellia2	147	IVERHAPQQYNNWAGYKNLFLQIVHDLKLKLQVVMMSFHECGGNVGDDVHIPLPQWVAEIGQR
Coffea2	168	IVEAHVPQOYNNWNGYKRLFQIVRDLDLKLQVVMMSFHECGGNVGDDVHIPLPQWVTEIGCG
Daucus2	136	IVEAHTPQOYKWNNGYKKLFLFQIVRDLNLKIQAVMSFHECGGNVGDNVHIPLPQWVTIEIGQG
Eucalyptus2	155	IVEADAPQOYNNWSGYKRLFQMVRDLKLKLQVVMMSFHDCGGNVGDDVHIPLPSPWMEIGQK
Ricinus2	150	IVEGNAPOVYDWSGYKRLFQIVNELKLKLQVVMMSFHECGGNVGDDVHIPLPWHTIEIGQT
Fragaria2	138	IVEAHNPQSYNNWSGYKKLFLFQIVRDLNLKLQVVMMSFHECGGNVGDDVHIPLPYWVTEIGQK
Arabidopsis2	141	IVESHTPQVYNNWSGYKKLFLFQMIRELGLKIQVVMMSFHECGGNVGDDVHIQIPEWVREIGQS
Vitis2	157	IVEAHTPQVYNNWSGYRRLFQIVHDIQQLKLQVVMMSFHECGGNVGDDVHIPLPPEWVREIGRS
Citrus2	157	IVEAHTPQVYNNWSGYRRLFQIVRELELKLKLQVVMMSFHECGGNVGDDVHIPLPQWVMEIGQN
Quercus2	156	IVEANAPQVYNNWSGYRRLFQIVRDLKLKLQVVMMSFHECGGNVGDDVHIPLPWVTEIGQS
Theobroma2	145	IVEAHTSQLYNNWSGYKRLFQIVRDLGLKLQVVMMSFHECGGNIGDNVHIPLPQWIREIGES

Beta1	218	DPDLAYTDQW <b>GRRN</b> F <b>EYISI</b> GCDTLPVLK <b>GRTPVQC</b> <b>YADEMRAE</b> RDQFEHLLGE.TIVEI
Daucus1	208	DPDLAYTDQW <b>GRRN</b> YEYL <b>SIGCDTLPVLKGRS</b> PVQC <b>YSDY</b> MRAFKEKFNHLLGD.TIVEI
Helianthus1	212	DPDLAYTDQW <b>GRRN</b> YEYL <b>SIGCDTIPCLKGRTPIQC</b> <b>YSDY</b> MRAFRDKFSHLLGD.TIVEI
Sesamum1	219	DPDLAYTDQW <b>GRRN</b> YEYL <b>SIGCDTLPALKGRTPVQC</b> <b>YSDF</b> MRAFRDTFEHLLGD.TIVEI
Coffea1	221	DPGLAYTDQW <b>GRRN</b> YEYL <b>SIGCDTLPVLKGRTPVQC</b> <b>YSDF</b> MLAFRDKFEHLLGD.TIVEI
Camelinal1	212	DPELAYTDQW <b>GRRN</b> HEYV <b>SIGADTLPVLKGRTPVQC</b> <b>YGDF</b> MRAFRDNFKHLLGD.TIVEI
Fragaria1	217	DPDLAYTDQW <b>GKRN</b> YEYL <b>SIGVDTLPLKGRTPVQC</b> <b>YADFMRAE</b> RDNFKHLLGD.TIVEV
Eucalyptus1	222	DPDLAYTDQW <b>GRRN</b> YEYL <b>SIGCDTLPVLKGRTPVQC</b> <b>YADFMRAE</b> RDNFQHLLGE.TIVEI
Quercus1	219	DPDLAYTDQW <b>GRRN</b> CEYL <b>SIGCDTIPVLKGRTPVQC</b> <b>YADFMRAF</b> RDNFKHLLGD.TIVEI
Citrus1	224	DQDLVYTDQW <b>GMRN</b> YEYL <b>SIGCDTIPVLKGRTMPVQC</b> <b>YSDF</b> MRAFKDKFKDLLGD.TIVEI
Vitis1	214	DPDLAYTDQW <b>GRRN</b> YEYV <b>SIGSDTLPLKGRTPVQC</b> <b>YADFMRAE</b> KDNFKHLLGD.TIVEI
Ricinus1	213	DVDLAYTDQW <b>GRRN</b> YEYL <b>SIGCDTLPVLKGRTPVQC</b> <b>YSDF</b> MRAFRDNFKHLLGD.TIVEI
Theobroma1	226	DPDIAYTDQW <b>GRRN</b> YEYV <b>SIGCDTLPVLKGRTSVQC</b> <b>YADFMRAE</b> RDNFKHLLGD.TIVEI
Glycine5	119	NHDIFYTNRSG <b>TRN</b> KEYL <b>TGVDNEPIFHGRTAIEI</b> YSDYMKSFRENMSDFLESGLIID
Arabidopsis7	354	NPDIYFTDREG <b>RRNP</b> ECLSW <b>GIDKERILRGRTALEV</b> YFDYMRSEFRIELAEFLLEDGVISMV
Helianthus7	371	NPDIFFTDRE <b>GRHN</b> PECLSW <b>GIDKERVLRGRTASEV</b> YFDYMRSEFRIEFDDYFVDGTISM
Nelumbo27	364	NPDIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFEDEIISEI
Aquilegia27	405	NPDIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFEDGVISEI
Macleaya27	334	NPDIFFTDKE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFQEGVISEI
Beta7	370	NPDIYFTDKE <b>GRRN</b> PECLSW <b>GIDKERVLKGRTAYEV</b> YFDYMRSEFRIEFGEFFEDGIISMV
Daucus7	366	NPDIYFTDRA <b>GRRN</b> QECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFTEFDLFFFEDGTISLI
Eucalyptus7	368	NPDIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRAEFNDYFEDGIISM
Fragaria7	364	NPDIFFTDRA <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDCMRSEFRIEFDEFFQDDIISM
Sesamum7	376	NPDIFFTDRA <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFEDGLISM
Coffea7	365	NPDIYFTDRA <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRAEFDEFFEDGMISM
Camellia7	368	NPDIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFEDGIISM
Vitis7	368	NPDIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERNLRGRTAVEV</b> YFDYMRSEFRIEFDEFFEDGIISM
Quercus7	359	NPDIFFTDKE <b>GRRN</b> PECLSW <b>GIDKDRVLRGRTAVEV</b> YFDYMRSEFTEFDDEFFEDGIISM
Ricinus7	373	NPDIFFTDRE <b>GRRN</b> PECLTW <b>GIDKERVLRGRTALEV</b> YFDYMRSEFRIEFDEFFEEGLISM
Theobroma7	370	NPDIMFTTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFNEFFEDGIISMV
Citrus7	371	NPHIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTALEV</b> YFDYMRSEFRIEFDEFFQNGVISMV
Sesamum2	197	DPDIFFTDKE <b>GRRN</b> QECLTW <b>GIDKERVLSGRS</b> SGIEVYYEYMRSECVEEEFFRDGVITEI
Oryza27	319	NPDIYFTDRA <b>GRRN</b> TECLSW <b>GIDKERVLQGRTGVEV</b> YFDYMRSEFRIEFDEYFEDGIISEI
Setaria27	353	NPDIYFTDRA <b>GRRN</b> TECLSW <b>GIDKERVLQGRTAVEV</b> YFDYMRSEFRIEFDEYFEDAIISEI
Panicum27	368	NPDIYFTDRT <b>GRRN</b> TECLSW <b>GIDKERVLQGRTAVEV</b> YFDYMRSEFRIEFDEYFEDGIISEI
Sorghum27	358	NPDIYFTDRA <b>GRRN</b> TECLSW <b>GIDKERVLQGRTAVEV</b> YFDYMRSEFRIEFDEYFEDGIISEI
Zea27	348	NPDIYFTDRA <b>GRRN</b> TECLSW <b>GVDKERVLQGRTAVEV</b> YFDYMRSEFRIEFDEYFEDGIISEI
Brachypodium27	359	NPDIYFTDRE <b>GRRN</b> TECLSW <b>GIDKERVLQGRTAVEV</b> YFDYMRSEFRIAFDEYFEDGIISEI
Aegilops27	355	NPDIYFTDRE <b>GRRN</b> TECLSW <b>GIDKERVLQGRTAVEV</b> YFDYMRSEFRIEFDEYFEDGIISEI
Amborella27	356	NPDIFFTDRE <b>GRRN</b> PECLTW <b>GIDKERVLRGRTALEV</b> YFDYMRSEFRIEFDEFFADGVISEI
Nymphaea27	394	NPDIFFTDRE <b>GRRN</b> PECLSW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFAEGIISEI
Beta2	213	NPDIYFTDRE <b>GKRN</b> TECLSW <b>GIDKERVLRGRTAAEV</b> YFDYMRSEFRIEFNEFFEGGTISEI
Helianthus2	193	NPDIYFTDRC <b>GRRN</b> SEGLTW <b>GIDKERVLRGRTAVEV</b> YFEYMRSEFRIEFDEFFQDGSITEI
Camellia2	207	NPDIFTTDKE <b>GRHN</b> PECLTW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFEDGIISEI
Coffea2	228	NPDIFTTDRD <b>GRRN</b> HECLTW <b>GIDKERVLRGRTALEV</b> YFDYMRSEFRIEFDEFFEDGAISDI
Daucus2	196	NPDIYFRNREG <b>TSNS</b> SECLTW <b>GVDKERVLRGRTAVEV</b> YFDYMRSEFRIEFDEFFAGGIITEI
Eucalyptus2	215	NPDIYFTDRE <b>GRRN</b> MECLTW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFNEFFEDGIISEI
Ricinus2	210	NPDIYFTDRE <b>GRRN</b> TECLTW <b>GIGKERVLKGRTAVEV</b> YFDYMRSEFRIEFDEFFEDGMISEI
Fragaria2	198	NPDIYFTNREG <b>QRI</b> VECLTW <b>GIDKERVLKGRTAVEV</b> YFDYMRSEFRIEFDEFFAEGIISEI
Arabidopsis2	201	NPDIYFTDSA <b>GRRN</b> TECLTW <b>GIDKQRVLRGRTALEV</b> YFDYMRSEFRIEFDEFFEEKIYPEI
Vitis2	217	NPDIFTTDKE <b>GRRN</b> PECLSW <b>GIDKERVLKGRTAVEV</b> YFDYMRSEFRIEFDEFFANGIISEI
Citrus2	217	NPEIYFTDRE <b>GRRN</b> SECLTW <b>GIDKERVLRGRTAVEV</b> YFDYMRSEFRIEFNEFFVGDIIAEI
Quercus2	216	NPDVYFTDRDG <b>RRNS</b> DCLSW <b>GIDKERVLKGRTAVEV</b> YFDYMRSEFRIEFDEFFEDKIISEI
Theobroma2	205	NPDIYFTDRE <b>GKRN</b> PECLTW <b>GIDKERVLKGRTAVEV</b> YFDYMRSEFRIEFDEFFVDGVISEI

Beta1	277	QVGMGPA <b>GELRYPPSYP</b> E <b>QDG</b> T <b>WKFPGI</b> <b>GAFQCFD</b> KYMDSSLKAAEAGKPEWGHS <b>GPTD</b>
Daucus1	267	QVGMGPA <b>GELRYPPSYP</b> E <b>QNG</b> T <b>WRFPGI</b> <b>GAFQCYD</b> KYMISSLKA <sup>A</sup> AEI <b>GKPEWGNTGPTD</b>
Helianthus1	271	QVGMGPA <b>GELRYPPSYP</b> E <b>KDG</b> K <b>WRFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAE <sup>N</sup> Y <b>GKPEWGSTGPTD</b>
Sesamum1	278	QVGMGPA <b>GELRYPPSYP</b> E <b>QDG</b> T <b>WKFPGI</b> <b>GAFQCYD</b> KYMISSLKA <sup>A</sup> AE <b>I</b> <sup>A</sup> <b>GKPEWGSTGPTD</b>
Coffea1	280	QVGMGPA <b>GELRYPPSYP</b> E <b>QNG</b> T <b>WKFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAEAY <b>GKPEWGSTGPTD</b>
Camelinal1	271	QVGMGPA <b>GELRYPPSYP</b> E <b>QE</b> G <b>T</b> <b>WKFPGI</b> <b>GAFQCYD</b> KYSLSSLKAAEAY <b>GKPEWGSTGPTD</b>
Fragaria1	276	QVGMGPA <b>GELRYPPSYP</b> E <b>EGD</b> G <b>T</b> <b>WSFPGI</b> <b>GAFQCFD</b> KYMLSSLKAYCE <b>SEGKPEWGSTGPTD</b>
Eucalyptus1	281	QVGMGPA <b>GELRYPPSYP</b> E <b>QNG</b> T <b>WKFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAEAA <b>GKAEWGHTGPTD</b>
Quercus1	278	QVGMGPA <b>GELRYPPSYP</b> E <b>QNG</b> T <b>WRFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAAEVAGKS <b>KWGSTGPTD</b>
Citrus1	283	QVGMGPA <b>GELRYPPSYP</b> E <b>QNG</b> T <b>WKFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAEASAG <b>KPEWGSTGPTD</b>
Vitis1	273	QVGMGPA <b>GEFRYPPSYP</b> E <b>QDG</b> T <b>WKFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAEAA <b>GKPEWGSTGPTD</b>
Ricinus1	272	QVGMGPA <b>GELRYPPSYP</b> E <b>QNG</b> T <b>WRFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAEAA <b>GKPEWGSTGPTD</b>
Theobroma1	285	QVGMGPA <b>GELRYPPSYP</b> E <b>QDG</b> T <b>WRFPGI</b> <b>GAFQCYD</b> KYMLSSLKAAAEAV <b>GKPEWGSTGPTD</b>
<b>Glycine5</b>	179	EVGLGPA <b>GDI</b> <b>RYPSP</b> <b>V</b> <b>OSQG</b> .WEFERI <b>GEFQCYD</b> KYLKADFKAAVARAGHPEWE..L <b>PDD</b>
Arabidopsis7	414	EIGLGPC <b>GELRYPPSCP</b> <b>I</b> <b>KHG</b> .WRYPVG <b>GEFQCYD</b> KYLSKSLRKAESRGH <b>LFWA.RGPDN</b>
Helianthus7	431	EIGLGPC <b>GELRYPPSNP</b> <b>V</b> <b>KHG</b> .WRYPVG <b>GEFQCYD</b> KYMLKSLTAKAESRGH <b>SFWA.RGPEN</b>
Nelumbo27	424	EVGLGPC <b>GELRYPPSY</b> <b>V</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKSLRRAAEARGH <b>SFWG.RGPDN</b>
Aquilegia27	465	EVGLGPC <b>GELRYPPSY</b> <b>S</b> <b>VKNG</b> .WRYPGI <b>GEFQCYD</b> QYLLKSLKAAEARGH <b>SFWA.RGPDN</b>
Macleaya27	394	EVGLGPC <b>GELRYPPSY</b> <b>P</b> <b>VKHG</b> .WRYPGI <b>GEFQCYD</b> RYLMKSLTKAAEARGH <b>SFWA.RGPEN</b>
Beta7	430	EVGLGPC <b>GDL</b> <b>RYPSP</b> <b>P</b> <b>VKHG</b> .WRYPGL <b>GEFQCYD</b> QYMLKSLRKAEEARGH <b>A</b> <b>FWA.KGPNN</b>
Daucus7	426	EIGLGPC <b>GELRYPPSNP</b> <b>V</b> <b>KHG</b> .WRYPVG <b>GEFQCYD</b> QYLLKSLRRAAE <b>TRGH</b> <b>SFWA.RGPDN</b>
Eucalyptus7	428	GIGLGPC <b>GELRYPPSNP</b> <b>V</b> <b>KNG</b> .WRYPGI <b>GEFQCYD</b> QYLLKNLRKAEEARGQ <b>A</b> <b>FWA.RGPDN</b>
Fragaria7	424	QVGLGPC <b>GELRFPSCT</b> <b>V</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKNLRKAEEARGH <b>SFWG.RGPDN</b>
Sesamum7	436	VVGLGPR <b>GELRYPCNP</b> <b>V</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> RYMLKSLQKAEEIRGH <b>SFWA.RGPEN</b>
Coffea7	425	EVGLGPC <b>GELRYPPSY</b> <b>P</b> <b>VKHG</b> .WRYPVG <b>GEFQCYD</b> QYMLNSLRKAENRGH <b>SFWA.RGPDN</b>
Camellia7	428	EVGLGPC <b>GELRYPPSNP</b> <b>V</b> <b>KHG</b> .WRYPVG <b>GEFQCYD</b> QNLLKSLRKAEEARGH <b>SFWT.RGPDN</b>
Vitis7	428	EVGLGPC <b>GELRYPPSY</b> <b>V</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKNLRKAEEARGH <b>A</b> <b>FWA.RGPDN</b>
Quercus7	419	EVGLGPC <b>GELRYPSF</b> <b>P</b> <b>VKHG</b> .WRYPGI <b>GEFQCYD</b> QYLLRSLRKAADRGH <b>SSWA.RGPDN</b>
Ricinus7	433	EVGLGPC <b>GELRYPPSCP</b> <b>V</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKSLRKTAEARGH <b>PFWA.RGPEN</b>
Theobroma7	430	EVGLGPC <b>GELRYPPSC</b> <b>P</b> <b>VKHG</b> .WRYPGI <b>GEFQCYD</b> QYMSKSLRKAELRGH <b>SFWA.RGPDN</b>
Citrus7	431	VVGLGPC <b>GELRYPPSCP</b> <b>V</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKNLRKASEARGH <b>SFWA.RGPDN</b>
Sesamum2	257	EIGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHD</b> .WKYPGI <b>GEFQCYD</b> KYLMKSFEKTAEAKV <b>QFSG.IQPEG</b>
Oryza27	379	EIGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKSLRRAAEARGH <b>T</b> <b>IWA.RAPDS</b>
Setaria27	413	EIGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKNLRRAAEERGH <b>T</b> <b>IWA.RGPDN</b>
Panicum27	428	EIGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKNLRRAAEARGH <b>T</b> <b>IWA.RGPDN</b>
Sorghum27	418	EIGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKSLRKAEEARGH <b>T</b> <b>IWA.RGPDN</b>
Zea27	408	EIGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKSLRKAEEARGH <b>T</b> <b>IWA.RGPDN</b>
Brachypodium27	419	EVGLGA <b>C</b> <b>GELRYPSY</b> <b>A</b> <b>ANHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKNLRKAEEARGH <b>T</b> <b>IWA.RSEDN</b>
Aegilops27	415	EVGLGA <b>C</b> <b>GELRYPSY</b> <b>A</b> <b>ANHG</b> .WKYPGI <b>GEFQCYD</b> RYLQKNLRRAAEARGH <b>AMWA.KSPDN</b>
Amborella27	416	EIGLGPC <b>GELRYPPSY</b> <b>V</b> <b>VRHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKSLRKAET <b>TRGH</b> <b>FIWA.RGPDN</b>
Nymphaea27	454	EIGLGPC <b>GELRYPPSY</b> <b>I</b> <b>RHG</b> .WRYPGI <b>GEFQCYD</b> QYLLKSLRKAEEKRGH <b>SFWA.RGPDN</b>
Beta2	273	EVGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>ANHG</b> .WKYPGI <b>GEFQCYD</b> KYLMKSQKAEEVRGH <b>LFWA.RAPDN</b>
Helianthus2	253	EIGLGA <b>C</b> <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WEYPGI <b>GEFQCYD</b> KYLRCKLEKAEEARGH <b>SFWG.RPFDN</b>
Camellia2	267	EIGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> RYLLNSLKAAEV <b>VRGH</b> <b>SFWG.RVPDN</b>
Coffea2	288	EIGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GAFC</b> <b>HD</b> KYLMKSLKAAEV <b>VRGH</b> <b>TFWG.KGPDN</b>
Daucus2	256	EIGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> QYLMKSLEQTAEARKLA <b>FWG.KGPEN</b>
Eucalyptus2	275	EIGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WEYPGI <b>GEFQCYD</b> RYLMKSLEKAAEV <b>VRGH</b> <b>SFWG.RAPDN</b>
Ricinus2	270	EVGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> KYLMRSLSKAAEARGH <b>SFWA.RGPDN</b>
Fragaria2	258	EVGLGPC <b>GELRYPPSY</b> <b>A</b> <b>QHG</b> .WKYPGI <b>GEFQCYD</b> RYLMENLRKAAEV <b>VRGH</b> <b>SFWA.RAPDN</b>
Arabidopsis2	261	EVGLGPC <b>GELRYPPSY</b> <b>A</b> <b>QFG</b> .WKYPGI <b>GEFQCYD</b> KYLMNSLKEAAEV <b>VRGH</b> <b>SFWG.RGPDN</b>
Vitis2	277	EIGLGPC <b>GELRYPPSY</b> <b>A</b> <b>ANHG</b> .WKYPGI <b>GEFQCYD</b> QYLSKSLTKAAEARGH <b>LFWA.KGPDN</b>
Citrus2	277	EVGLGPC <b>GELRYPT</b> <b>Y</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> KYLMKSLSKAAEARGH <b>LFWA.RGPDN</b>
Quercus2	276	EVGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WKYPGI <b>GEFQCYD</b> KYLMKSLTKAAEARGH <b>LFWA.RGPDN</b>
Theobroma2	265	EVGLGPC <b>GELRYPPSY</b> <b>A</b> <b>KHG</b> .WRYPGI <b>GEFQCYD</b> KYLMKSLSKAAEIRGH <b>SFWA.RGPDN</b>

Beta1	337	AGE YNNW P E D T Q F F C K E G G W W S S S Y G E F F L T W Y S Q M L L D H G E R I L S A A T E I F K D K G V K I S
Daucus1	327	AGS YNNW P E D T N F F R K E G G G W D G D Y G E F F L T W Y S Q L L D H G E R I L T S A K S I F E N T G V K I S
Helianthus1	331	AGE YNNW P E D T N F F R K R E D G G W N S E Y G E F F L S W Y S Q M L L D H G D R I L S S A T S I F E N Q G V K I S
Sesamum1	338	A G H Y N N W P E D T N F F R K E G G G W N T P Y G E F F L S W Y S Q M L I D H G E R I L Q S A K S L F E N K G V K I S
Coffea1	340	A G H Y N N W P D D T N F F R K E G G G W D S E Y G E F F L S W Y S K M L L D H G E R I L Q S A K A I F E N G G V K I S
Camelinal	331	A G H Y N N W P E D T Q F F K K E D G G W N T E Y G E F F L S W Y S Q M L L D H G E R I L S S A K S I F E S T G V K I S
Fragaria1	336	A G H Y N N W P E D T P F F R K E G G G W N S T Y G E F F L G W Y S Q M L L D H G E R I L S S A K A I Y E N E G V K I S
Eucalyptus1	341	A G H Y N N W P E D A P F F K K E G G G W N S Q Y G E F F L S W Y S Q M L L D H G E R I L S S A K S V F E N T G T K I S
Quercus1	338	A G E Y N N W P E D T P F F R K E G G G W N S S Y G E F F L G W Y S Q M L L D H G D R I L M S A K S I F E N S G V K I S
Citrus1	343	A G H Y N N W P E D T Q F F R K E N G G W C S P Y G E F F L S W Y S Q M L L D H G E R I L S S A K A I F D A T G V K I S
Vitis1	333	A G H Y N N W P E D A R F F R R E G G G W T S P Y G E F F L N W Y S Q M L L D H G E R I L S S A K S I F Q D M G V K I S
Ricinus1	332	A G H Y N N W P E D T P F F K K D G G G W N S I Y G E F F L G W Y S Q M L L D H G E R I L S S A T A I F E N T G V K I S
Theobroma1	345	A G H Y N Y W P E D T P F F K K E G G G W N S R Y G E F F L S W Y S Q M L L D H G E R I L S S A T S V F E G A G V K I S
Glycine5	236	A G K Y N D V P E S T G F F K . S N G T Y V T E K G K F F L T W Y S N K L L N H G D Q I L D E A N K A F L G C V K L A
Arabidopsis7	472	T G S Y N S Q P Q G T G F F C . D G G D Y D G L Y G R F F L K W Y S Q V L I D H A D Q I L C L A K L V F D S S C . . I A
Helianthus7	489	A G S Y N S Q P R E T G F F C . N G G D Y D S Y Y G R F F L K W Y S Q V L L T N H A D R V L S L A K F A F E G T F . . I T
Nelumbo27	482	A G S Y N S Q P H D T G F F C . D G G D Y D S Y Y G R F F L K W Y S Q V L I D H A D R V L F L A K L A F E G T C . . I A
Aquilegia27	523	A G S Y N S Q P H D T G F F C . D G G D Y D S Y Y G R F F L N W Y S Q V L V D H A D R V L S L A K L A F E G T C . . I A
Macleaya27	452	A G C Y T S Q P H E T G F F C . D G G D Y D S Y Y G R F F L N W Y S Q I L I D H A D R V L S L A K L A F E G T C . . I A
Beta7	488	A G F Y N S Q P H E T G F F C . D G G E Y D G Y Y G R F F L N W Y S Q V L V D H G D R I L S L A K L V F E G T C . . I A
Daucus7	484	S G S Y N S Q P K E T G F F C . D G G D Y N G H Y G R F F L G W Y S Q V L I D H G D R L M A L A R M A F E G I C . . I A
Eucalyptus7	486	A G S Y N S Q P Q E T G F F C . D G G D Y D G Y F G R F F L K W Y S Q V L I D H G D R V L A L A K L A F D G T C . . I A
Fragaria7	482	A G S Y N S Q P H E S G F F C . D G G D Y D G Y Y G R F F L N W Y S Q V L V D H G D R V L S L A K L A F D G T S . . I A
Sesamum7	494	A G S Y N S R P H E T G F F C . D G G D Y D G Y Y G R F F L K W Y S Q G L V D H G D R V L S L A K L A F E G T F . . V A
Coffea7	483	A G S Y N S C P H E T G F F C . D G G D Y D G Y Y G R F F L N W Y S Q V L I E H G D R V L S L A N L V F E G T C . . I A
Camellia7	486	A G S Y N S R P H E T G F F C . D G G D Y D G Y Y G R F F L S W Y S Q V L V D H G D R V L S L A K L A F E G T C . . I A
Vitis7	486	V G S Y N S Q P H E T G F F C . D G G D Y D G Y Y A R F F L N W Y S Q V L V D H G D R V L S L A K L A F E G T S . . I A
Quercus7	477	A G S Y N S R P L E T G F F C . D G G D Y D G Y Y G R F F L N W Y S Q I V V D H G D R V L S L A K L T F D G T R . . I A
Ricinus7	491	A G S Y N A Q P H E T G F F H . D G G D Y D G Y Y G R F F L N W Y S R V L V E H G D R V L S L A K L A F E G T Q . . I A
Theobroma7	488	A G S Y N S Q P D E T G F F C . D G G D Y D G Y Y G R F F L N W Y S Q V L V D H G D R V L S L A K L A F E G T C . . I A
Citrus7	489	A G S Y N S R P H E T G F F C . D G G D Y N G Y Y G R F F L N W Y S Q V L V D H G D R V L S L A K L A F E G T C . . I G
Sesamum2	315	V G S Y N S K P Y E T K F F C . D G G A Y D G Y Y G R F F L N W Y S Q V L I D H G D Q V L A M A S L A F A G T P . . I A
Oryza27	437	A G H Y N S E P N L T G F F S . D G G D Y D S Y Y G R F F L N W Y S Q V L V D H A D R V L M L A R L A F E G S D . . I A
Setaria27	471	A G H Y N S E P N L T G F F C . D G G D Y D S Y Y G R F F L N W Y S Q M L V D H A D R V L M L A R L A F E G L N . . I A
Panicum27	486	A G H Y N S E P N L T G F F C . D G G D Y D S Y Y G R F F L N W Y S Q M L V D H A D R V L M L A R L A F E G S S . . I A
Sorghum27	476	A G H Y N S E P N L T G F F C . D G G D Y D S Y Y G R F F L S W Y S Q T L V D H A D R V L M L A R L A F E G S N . . I A
Zea27	466	A G H Y N S E P N L T G F F C . D G G D Y D S Y Y G R F F L S W Y S Q A L V D H A D R V L M L A R L A F E G T N . . I A
Brachypodium27	477	A G H Y N S E P N S T G F F C . D G G D Y D S Y Y G R F F L N W Y S Q V L L D H A D R V L M L A R L A F E G S A . . I A
Aegilops27	473	A G H Y N S E P N N T G F F C . D G G D Y D S Y Y G R F F L N W Y A Q V L L D H A D R V L M L A R L A F E G S A . . I A
Amborella27	474	A G C Y N S R P H D T S F F C . D G G D Y D S Y Y G R F F L G W Y S Q V L I D H A D R V L A L A N L A F E G T R . . I A
Nymphaea27	512	A G T Y N S Q P H E T G F F C . D G G D Y D S Y Y G R F F L A W Y C Q V L I D H A D R V L S L A R L A F E G T C . . I A
Beta2	331	A G S Y N S W P D K T G F F R . D G G D Y D S Y Y G R F F L N W Y S K V L I D H G D R V L A L A N L A F E G F S . . I A
Helianthus2	311	A G S Y N S Q P Q D T R F F C . D G G E Y D S A Y G R F F L K W Y S Q Y L I D H G D R V L S M A N L A F E D T P . . I A
Camellia2	325	A G S Y N S R P H E T R F F C . D G G D Y D S Y Y G R F F L N W Y S Q V L V D H G D R V L A L A N L A F E G T C . . I A
Coffea2	346	A G S Y N S R P H E T R F F C . D G G D Y D G Y Y G R F F L N W Y S Q I L V D H G D R V L S L A N L A F E G T A . . I A
Daucus2	314	A G S Y N S S P H E T R F F C . D G G D Y D S Y Y G R F F L N W Y S Q V L V D H G D R V L A L A N L A F E G T P . . I A
Eucalyptus2	333	A G C Y N S R P H D T S F F R . D G G E Y D G Y Y G R F F L N W Y S R V L I D H G D R V L S L A N L A F E G C C . . I A
Ricinus2	328	A G F Y N S A P H E T G F F R . D G G D Y D S Y Y G R F F L N W Y S R V L I D H G D R V L A L A N L A F E G T C . . I S
Fragaria2	316	A G S Y N F R P Q D T G F F R . D G G D Y D S Y Y G R F F L N W Y S N V L V D H G D R V L T L A N L A F E G T S . . I A
<b>Arabidopsis2</b>	319	T E T Y N S T P H G T G F F R . D G G D Y D S Y Y G R F F L N W Y S R V L I D H G D R V L A M A N L A F E G T C . . I A
Vitis2	335	A G H Y N S R P H E T V F F C . D G G K Y D S Y Y G R F F L N W Y S R V L V D H G D R V L A L A N L A F E G T C . . I A
Citrus2	335	A G S Y N S T P H E T G F F R . D G G E Y D S Y Y G R F F L N W Y S Q V L I D H G D R V F A L A N L A F E G T C . . I S
Quercus2	334	A G S Y N S T P H E T G F F C . D G G E Y D S Y Y G K F F L N W Y S Q V L V D H G D R V L A L A N L A F E G T C . . I A
Theobroma2	323	A G S Y N S T P H E T G F F R . D G G D Y D S Y Y G R F F L N W Y S Q V L V D H G D R V L A L A N L A F E G T C . . I A

Beta1	397	VKIAIGIHWWYGTSHAPELTAGYYNTRFRDGYLPIAQMLARYGAIFNFTCIEMRDQEQPQ
Daucus1	387	VKVAGIHWYGTSHAPELTAGYYNTRFRDGYLPIAQMFARHGAVFNFTCIEMRDHEQPQ
Helianthus1	391	VKVAGIHWYGTSHAPELTAGYYNTRYRDGYLPIARMLARHSAVFNFTCIEMRDHEQPQ
Sesamum1	398	VKIAGIHWYGTSHAPELTAGYYNTRFRDGYLPIAQMLARHGAVFNFTCIEMRDHEQPQ
Coffea1	400	VKIAGIHWYGTSHAPELTAGYYNTRLRDGYLPIAQMLARHGAIFNFTCIEMRDHEQPQ
Camelinal	391	VKIAGIHWYGTSHAPELTAGYYNTRFRDGYLPIAQMLARHNAIFNFTCIEMRDHEQPQ
Fragarial	396	VKVAGIHWYGTSHAPELTAGYYNTRFRDGYLPIAQMFARHGAIFNFTCIEMHDHEQPQ
Eucalyptus1	401	VKVAGIHWYGTSHAPELTAGYYNTRYRDGYLPIAQMLARHGAIFNFTCIEMRDHEQPQ
Quercus1	398	VKIAGIHWYGSRSHAPELTAGYYNTRFRDGYLPIAQMLARHGAIFNFTCIEMRDHEQPQ
Citrus1	403	VKVAGIHWYGSRSHAPELTAGYYNTRFRDGYLPIAQMLARHGAIFNFTCIEMRDHEQPQ
Vitis1	393	VKVSGIHWYGTQSHAPELTAGYYNTRFRDGYLPIAQMLARHGAIFNFTCIEMRDHEQPQ
Ricinus1	392	VKVAGIHWYGTSHAPELTAGYYNTRFRDGYLPIAQMLGRHGAIFNFTCIEMRDHEQPQ
Theobroma1	405	VKVAGIHWYGTSHAPELTAGYYNTRFRDGYLPIAQMLARHGAVFNFTCIEMRDHEQPQ
Glycine5	295	IKVSGIHWYVKENHAAELTAGYYNLNDRDGYRPIARMLSRHHAILNCELMRDSEQPSS
Arabidopsis7	529	AKLPDVHWYWRTASHAELTAGFYNPNSNRDGYSAIASLKKHGATLSFVSVGEVQLNRPD
Helianthus7	546	VKLPGIHWYKTESHAAELTAGFYNPNSNRDGYAPVMEMLKKHEVALNFTLAQMGISDPHM
Nelumbo27	539	AKLSGIHWYKTASHAELTVGFYNPCNRDGYAAIASMLKKHGAALNFTCVELRTLTDQHE
Aquilegia27	580	TKLSGIHWYKTASHAELTAGFYNPNCNRDGYAAIASMLKKHGAALNFTCVELRTLTDQHE
Macleaya27	509	VKLSGVHWYWKTASHAELTAGFYNPNCNRDGYAAIAAMLKKEAALNFTCVELRTLTDQHE
Beta7	545	AKLSGVHWYWKTASHAAEITAGFCNPNCNRDGYAAVMSMLKKNGAALNFTTAEVDMLDQLE
Daucus7	541	AKLSGIYWWYKSSSHAAELTAGFYNPNCNRDGYAPIAMRLRKHEAGLNFTCVGTCMLVPCG
Eucalyptus7	543	AKLSGIYWWYRTASHAAESTAGFYNPNSNRDGYATIAAMLKKhGAALNFTCAQLHVLDQ.Q
Fragaria7	539	VKLSGIHWYKTPSHAAELTAGFYNPNCNRDGYAAIMTMLKKHGVSLNLVCTQPLMLEDNI
Sesamum7	551	AKLSGIHWYKTASHAELTAGYYNSCNRDGYAAIMAAMLRHGAAICFTCSHMSMVDDHM
Coffea7	540	VKLSGAPWWYKTASHATELTSGFYNPSCNRDGYAAIVAMLKKhGVILNFTCAGMSMLNQNV
Camellia7	543	AKLSGIHWYKSASHAAELTAGYYNPNCNRDGYAAVMAMLKKHEAAVNFMYAEWSVLDQHG
Vitis7	543	AKLAGVHWYWKTTSASHAELMAGFYNPNCNRDGYAAVMAMLKKHGAALNFTCAELHMLNRHE
Quercus7	534	AKLPGIYWWYKTASHAAELTAGFYNPSCNRDGYAAIAAMLKKhGAALNFTCAEIQMGLQHE
Ricinus7	548	AKLSGIHWYWKTASHAAELTAGFYNPSCNRDGYNAIAMLKKhGAALNFSCEARMILDQPG
Theobroma7	545	AKLPGIYWWYKTASHAAELTAGFYNPNCNRDGYSAIAAMLKKhGATLNFACPELHLLEQHE
Citrus7	546	AKLSGFHWYWKTASHAAELTAGFYNPNCNRDGYAAIVATLKKNGAVLNFASAEIHTLERQE
Sesamum2	372	AKLSGVHWYWKTSSASHAELTAGFYNSTNRDGYTPIVAMLKKhKTTLNFTCVELRTLTDQYA
Oryza27	494	VKVSGVHWYWKTASHAAELTAGFYNPNCNRDGYASIAAVLKKHGAALNFTCVELRTMDQHE
Setaria27	528	VKVSGVHWYWKTASHAAELTAGFYNPNCNRDGYAPIAAVLKKYDAALNFTCVELRTMDQHE
Panicum27	543	VKVSGVHWYWKTASHAAELTAGFYNPNCNRDGYAPIAAVLKKYDAALNFTCVELRTMDQHE
Sorghum27	533	VKVSGVHWYWKTASHAAELTAGFYNPNCNRDGYAPIAAVLKKYDAALNFTCVELRTMDQHE
Zea27	523	VKVSGVHWYWKTASHAAELTAGFYNPNCNRDGYAPIAAVLKKYDAALNFTCVELRTMDQHE
Brachypodium27	534	VKVSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIAVTVLKKHGAALNFTCVELRTMAQHE
Aegilops27	530	VKVSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIAQVLKKHGAALNFTCVELRTMDQHE
Amborella27	531	AKISGIHWYWKTASHAAELAAGFYNPNCNRDGYSPIAQMLKKHEVALNFTCAELRTLTDQHE
Nymphaea27	569	VKLSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIAQMLKNHNATLNFTCVELRTLTDHHE
Beta2	388	AKLSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIAEMLKKEAALNFTCVELRTLTDQHE
Helianthus2	368	VKLSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIASMLKKHETALNFTCVELRTLTDQHE
Camellia2	382	TKLSGIHWYWKTASHATELTAGFYNPNCNRDGYAPIATMLKKHETALNFTCVELRTLTDQHE
Coffea2	403	AKLSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIASMLKKHDTTLNFTCVELRTLTDQHE
Daucus2	371	AKLSGIHWYWKTASHAAELTAGFYNPNCNRDGYAPIASMLKKHGAALNFTCVELRTLTDQHE
Eucalyptus2	390	VKLSGIHWYWKTASHAAELTAGFYNPSCNRDGYATIVSMLKKHEIAMNFTCVELRTLTDQHE
Ricinus2	385	AKVSGIHWYWKTASHAAELTAGFYNPNSNRDGYAPIAAMLNKHGVGLNFTCVELRTLTDQHE
Fragaria2	373	AKLSGIHWYWKTASHAAELTAGFYNPNCNRDGYTPIAVMFKKHAALNFTCVELRTLTDQHE
Arabidopsis2	376	AKLPGIHWYWKTASHAAELTAGFYNPNSNRDGYGPIAAAMFKKHDAAALNFTCVELRTLTDQHE
Vitis2	392	VKLSGIHWYWKTASHASELTAGFYNPNCNRDGYAPIASEMLQKHGAALNFTCVELRTLTDQHE
Citrus2	392	AKLSGIHWYWKTASHAAELTAGFYNPNSNRDGYAPIAAMLKKhGVALNFTCVELRTLTDQHE
Quercus2	391	SKVSGIHWYWKTASHAAELTAGFYNPANRDGYAPIAAMLKKhGAALNFTCVELRTLTDQHE
Theobroma2	380	AKLSGIHWYWKTASHAAELTAGFYNPNSNRDGYAPIAAMLKKhGVALNFTCVELRTLTDQHE

Beta1	457	... DALCAPEKLVRQVVSATQRAQVPLAGENALPRYDEHAHEQIILNASALNVDENSGER.
Daucus1	447	... DAQCAPEKLVRQVVALATREAQVPLAGENALPRYDDYAHQEQLNAAASLNLDSSGA..
Helianthus1	451	... DAQCAPEKLVQKVTLATREAQVVALAGENALPRYDDYAHQEQLNAAASLS...DN
Sesamum1	458	... DALCAPEKLVRQVVALATQEAQVPLAGENALPRYDDYAHQEQLQASALDIDGNSADR.
Coffea1	460	... DALCAPEKLVRQVVALATQQAQVPLAGENALPRYDEYAHQEQLKTAALNIDGNSTNRE
Camelinal	451	... DALCAPEKLVNQVVALATLAAEVPLAGENALPRYDDYAHQEQLKATALSFDQNSEGEK
Fragarial	456	... DAQCSPEGLVRQVVALATQKAGVPLAGENALPRYDDYAHQEQLQASALNIKGNT..EG
Eucalyptus1	461	... DALCAPEKLVKQVVALATQKAEVPLAGENALQRYYDDYAHQEQLRSLNNIDGYPQ..ED
Quercus1	458	... DALCAPEKLVKQVVALATQKAKVPLAGENALPRYDGCAHEQEQLQTSSLNFDGNS..GG
Citrus1	463	... DALCAPEKLVKQVASATQKAHVPLAGENALPRYDEYAHQEQLRAASLDV...D
Vitis1	453	... DALCAPEKLVRQVVALATREAQVPLAGENALPRYDETAHEQEQLGASSLNIDGE..E
Ricinus1	452	... DALCAPEKLVRQVVALATQEAQVPLAGENALPRYDDFAHEQEQLQASSLSINGDS..DD
Theobroma1	465	... DALCAPEKLVRQVVALATAAAQVPLAGENALPRYDEYAHQEQLQASSLNIDGSS..DD
Glycine5	355	... DAKSGPQELVQVQLSGGWREDIRVAGENAIPRYDATAYNQIIILNAKPQGVNNNGPPK
Arabidopsis7	589	DFSGALGEPEAVAWQVLNAAWDSGTVPARENSLACHDRVGYNKMLESVKFR...NDPDR
Helianthus7	606	DSSEVLEDPDGLAWQVMNAAWDSCIPPISENSLPCVDKVSYNHVLKAKPO...NDPDG
Nelumbo27	599	DFPEALADPEGLVWQVLNAAWDVSIIPVASENALPCHDREGYNKILENSKPL...NDPDG
Aquilegia27	640	DFPEALADPEGLVWQVLNAAWDVCIIPVASENALPCHDREGYNKILENAKPM...NDPDG
Macleaya27	569	DYPEALADPEGLVWQVLNAAWDVSIIPVASENALPCHDREGYNKILENAKPL...NDPDG
Beta7	605	VSPEALADPEGLAWQVLNAAWDVCIPVASENSVPCHSREVYNKILENAKPF...NDPDG
Daucus7	601	DFSGELGDPEGLNWQVLNAAWDALVPVSENDLPCHDRDGYNRILEKAKPL...NDPDG
Eucalyptus7	602	DFSSALADPDGLAWQVLNAAWDHGIPVIGENFLPCHTRVGYNKMLDGAKLL...NDPDG
Fragaria7	599	DFQEALGDPEGLFWQVLNAAWDVCIIPVASESENALLCHNRVGYNKILDNSKPL...TDPDG
Sesamum7	611	DFSESALADPEGLTWQVLNAAWDASIIPVASENSFPCHDREGYNYLLEKAKPI...GDPDG
Coffea7	600	DFSEALADPEGLTWQVLNAAWDVCIIPVASENALPCHDREGYNYLSEKAKPT...NDPDG
Camellia7	603	DFSEALADPEGLAWQVLNAAWDVCIIPVASENALPCHDREGYNNIILERAKPL...NDPDG
Vitis7	603	DFPEAMADPEGLAWQVLNAAWDVCIIPVVSENALLTHDRESYNKILENAKPL...NDPDG
Quercus7	594	DFVEALVDTEGLVWQVLNAAWDAIPVTSENTLSCHDREGYNKILD TAKPM...NDPDG
Ricinus7	608	DFVEALGDPDGLLWQVLNAAWDVDTLIASENVLPCHDREGYNKILDNAKPL...NNPDG
Theobroma7	605	DLREALADPQGLWQVLNAAWDVCIIPVASENALPCHDREGYNKILDNLKV...NDPDG
Citrus7	606	EFSEALADPDGLMWQVMNAAWDVCTPVASENTLPCHDDRVGYNKILDNAKPL...SDPDG
Sesamum2	432	AFPEALADPEGLVWQVLNAAWDAGIHVASENALPCYNRQSFYKILQNAKPH...GDPDR
Oryza27	554	VFPEAFADPEGLVWQVLNAAWDAGIPVASENALPCYDRDGFNKILENAKPL...NDPDG
Setaria27	588	VYPEAFADPEGLVWQVLNAAWDAGLQVASENALPCYDREGFNKILENAKPL...NDPDG
Panicum27	603	VYPDAFADPEGLVWQVLNAAWDAIQVASENALPCYDREGFNKILENAKPL...NDPDG
Sorghum27	593	VYPEAFADPEGLVWQVLNAAWDAIQVASENALPCYDRDGFNKILENAKPL...NDPDG
Zea27	583	VYPEAFADPEGLVWQVLNAAWDAIQVASENALPCYDRDGFNKILENAKPL...NDPDG
Brachypodium27	594	VFPEALADPEGLVWQVLNAAWDAIPVASENALPCYDRDGFNKTLENNAKPR...NDPDG
Aegilops27	590	VYPEALADPEGLVWQVLNAAWDAIQVASENALPCYDRDGFNKTLENNAKPR...NDPDG
Amborella27	591	DFPEALADPEGLVWQVLNAAWDVGIPVASENALPCYDREGYNKVLNAKPA...HDPDG
Nymphaea27	629	DFPEALADPEGLVWQVLNAAWDVNIQVASENALPCYDRDGYNKILENAKPL...NNPDR
Beta2	448	EYPEALADPEGLVWQVLNAAWDVICIPVASENALCCYDREGYNKILENAKPR...NDPDG
Helianthus2	428	GFPEAMVDPGLWQVLNAAWDAIPVASENALPCYDRQGYNKILEHAKPR...NDPDG
Camellia2	442	DFPEALADPEGLVWQVLNAAWDVSIIPVASENALPCYDREGYNKILENAKPL...NDPDG
Coffea2	463	DFPEALADPEGLVWQVLNAAWDVSIIPVASENALPCYDREGYNKILENAKPL...SNPDG
Daucus2	431	DFPEALADPEGLVWQVLNAAWDVDIIPVASENALSCHDREGYNKILENAKPL...NDPYG
Eucalyptus2	450	DFPEAMADPEGLVWQVLNAAWDAQIPVASENALPCYDGEGYNKILENAKPR...DDPDG
Ricinus2	445	DFPEALADPEGLVWQVLNAAWDAIPVASENALPCYDREGYNKILENAKPL...EDPDG
Fragaria2	433	DFPEAMADPEGLVWQVLNAAWDANIPVASESENALNCHDREGYNKILENAKPR...NDPDG
Arabidopsis2	436	DFPEALADPEGLVWQVLNAAWDASIPVASENALPCYDREGYNKILENAKPL...TDPDG
Vitis2	452	GFPEALADPEGLVWQVLNAAWDVSIIPVASENALTCHDREGYNKILENAKPF...NDPDG
Citrus2	452	DFPEALADPEGLVWQVLNAAWDVSIIPVASENALPCYDREGYNKILENAKPL...NDPDG
Quercus2	451	DFPEALADPEGLVWQVLNAAWDVCIIPVASENALPCYDREGYNKILENAKPL...NDPDG
Theobroma2	440	DFPEALADPEGLVWQVLNAAWDVSIIPVASENALPCYDREGYNKILENAKPR...NDPDG

Beta1	513	.EMCAFTYLRMNPD <del>L</del> FQADNWRKFVA <del>F</del> VKKMKEGKDVNRCWEQVEREAEHFVHATQPLVQ
Daucus1	502	EEMCAFTYLRMNPNL <del>F</del> QPDNWRRFVA <del>F</del> VKKMKEGKDNTKCWEQVEREAEHFVHVTQPLVQ
Helianthus1	501	DEMCRAFTYLRMNPE <del>L</del> FQADNWRRFVA <del>F</del> VKKMKEGKDVKCWEQVEREAEHFVHVTPLVQ
Sesamum1	514	.EMCAFTYLRMNPD <del>L</del> FQPDNWRRFVA <del>F</del> VKKMKEGKDVKCWEQVEREAEHFVHVTQPLVQ
Coffea1	517	IEMCAFTYLRMNPD <del>L</del> FHADNWRRFVA <del>F</del> VKKMKEGKDVKCWEQVEREAEHFVHVTQPFVQ
Camelinal1	508	REMCRAFTYLRMNPE <del>L</del> FQANNWGKFVA <del>F</del> VKKMGEGRDSHRCWEEVEREAEHFVHVTQPLVQ
Fragaria1	511	KQMCRAFTYLRMN <del>P</del> QLFQADNWRRFVS <del>F</del> VKKMKEGKNTHKCREEVEREAEHFVHVTPLVQ
Eucalyptus1	517	KEMCAFTYLRMNPD <del>L</del> FQADNWRRFVA <del>F</del> VKKMKEGKNLHRCWEQVEREAEHFVHVTQPLVQ
Quercus1	513	SEMCAFTYLRMN <del>P</del> QLFQADNWSRFVG <del>F</del> VKKMKEGKGANKCREQVEREAEHFVHITEPSMQ
Citrus1	513	KQMCRAFTYLRMNPHL <del>F</del> QPDNWRQFVA <del>F</del> VKKMNEGKDVHRCLEQVEREAEHFVHVTQPLVQ
Vitis1	506	SDMCRAFTYLRMNPD <del>L</del> FQPDNWRRFVA <del>F</del> VKKMKEGKDSHKCRELVEREAEHSVHVTPLVQ
Ricinus1	507	REMCRAFTYLRMNPHLFQEDNWRRFVA <del>F</del> VKKMKEGKNVDRCREQVEREAEHFVHVSRLPLVQ
Theobroma1	520	REMCRAFTYLRMNPSLFQPENWRRFVA <del>F</del> VKKMNEGKDAYRCWEQVEREAEHFVHVTQPLVQ
Glycine5	412	LSMFGFTYLRISDDLLQKSNFNIFKKFVLKMHDQDYCANP.QKYN...HAITPLKPSAP
Arabidopsis7	645	KHLSSFA <del>Y</del> SRLVPALMEGHNNIVEFERFVKKLHGEAVMNHHHHHHHQ...Q...V...
Helianthus7	662	RHYSAFTYLRIGPLLMEPHNIMEFERFIKRMHGEAVLHV...
Nelumbo27	655	RHLSAFTYLRIGPHLMERDNFLFERFVKRMHGEAVLDLQL...
Aquilegia27	696	RHLSAFTYLRICPVLMDRHNFM <del>E</del> FERFVKRMHGEAVMDLQM...
Macleaya27	625	RHLVAFTYLRITPYYL <del>M</del> EEQN <del>F</del> EFERFVKRMHD...
Beta7	661	RHLLSFTYHRLSLQLMERHN <del>L</del> VEF <del>F</del> VKKMHGAEAVLDPQS.QM...
Daucus7	657	RHFTSFTYLRISVSL <del>L</del> MERQN <del>F</del> MEFERFVKKMHGAEAVLDV...
Eucalyptus7	658	RHFLSFTYLRINSI <del>L</del> MERQN <del>L</del> LEF <del>F</del> FERFVKRMHGEAVRDLQ...
Fragaria7	655	RHL <del>S</del> AFTYLRISPI <del>L</del> MERHN <del>F</del> ME <del>F</del> DRFVKRMHGEAVLDLHV...
Sesamum7	667	RHFSAFTYLRINPL <del>L</del> MERQN <del>L</del> VEF <del>F</del> QFVKRMHGEAVLEYQT...
Coffea7	656	RHFSFTYLRIRPLLMERHN <del>F</del> LEFERFVKRMHGEAVLDIL...
Camellia7	659	RHFCRAFTYLRIGPLLMETQN <del>F</del> EFERFVKRIHGAEAVLDLHS...
Vitis7	659	RHFSSFTYLRISPLLMERHN <del>F</del> LEFERFVKRMHGEAVLDLQL...
Quercus7	650	RHFSSFTYLRISPLLMERHN <del>F</del> MEFERFVKKMHGEEVLDLQV...
Ricinus7	664	RHFLSFTYLRISPLLMERQN <del>F</del> MEFERFVKRMHGEAVIDLQV...
Theobroma7	661	RHFASFTYLRISPLLMERQN <del>F</del> MEFERFVKRMHGEAVLDLQV...
Citrus7	662	RHFLSFSTYLRIGLGLMEREN <del>F</del> MEFERFVKRMHGEAVLDLQV...
Sesamum2	488	RHLSAFTYLRISPDLMEQHN <del>L</del> MEFVR <del>F</del> VKQMHAELAGESI...
Oryza27	610	RHLLGFTYLRITKVLFERAN <del>F</del> LEFERFVKRMHGEAVLDLQV...
Setaria27	644	RHLFGFTYLRISKVLFERPN <del>F</del> EFERFVKRMHGEAVLDLQA...
Panicum27	659	RHLFGFTYLRISKVLLERRN <del>F</del> EFERFVKRMHGEAVLDLQV...
Sorghum27	649	RHLFGFTYLRISNVLERPN <del>F</del> EFERFVKRMHGEAVLDLQV...
Zea27	639	RHLLGFTYLRIGKDLFERPN <del>F</del> EFERFIKRMHGEAVLDLQV...
Brachypodium27	650	RHLFGFTYLRISCSVLF <del>E</del> KPN <del>F</del> MEFERFVKRMHGEAVLDLQA...
Aegilops27	646	RHLFGFTYLRICSTL <del>F</del> EGPN <del>L</del> PEFERFVKRMHGEAVHDLRA...
Amborella27	647	RHLSAFTYLRISPA <del>L</del> MERQN <del>F</del> LEFERFVKRMHGEAVPDPQL...
Nymphaea27	685	RHLSAFTYLRIGPA <del>L</del> MERHN <del>F</del> LEFERFVKRMHGLATN...
Beta2	504	KHLSAFTYLRINPDLMEESEN <del>F</del> MEFERFVKRMHGESVPDLC.LVNT...S...LHESQEP
Helianthus2	484	RHLSAFTYLRINQALLEEHN <del>L</del> REFQ <del>F</del> VKRMHGEAVE...
Camellia2	498	RHLSAFTYLRISPVLMENHN <del>F</del> EFERFVKKMHGEAISHLQS.LFEG...K...GQQVSSD
Coffea2	519	RHLSAFTYLRIGPVLMEKHN <del>F</del> EFERFVKRMHGE <del>P</del> VSD...
Daucus2	487	RHLSAFTYLRISPLLLEKHNLTEF <del>F</del> ERFVRGMHGEAVLDVQS.ATD...
Eucalyptus2	506	RHLSAFTYLRISPTLT <del>E</del> GN <del>N</del> LM <del>F</del> EFERFVKRMHGETVLDKLM...
Ricinus2	501	RHLSVFTYLRISAVLMERHN <del>F</del> IEFERFVKRMHGDLSLSPILL.LLG...
Fragaria2	489	RHLSAFTYLRISPVLLERHN <del>F</del> MEFERFVKKMHGEAATDLQI.NPNE...E...NTADSSA
Arabidopsis2	492	RHLS <del>C</del> FTYLRINPTL <del>M</del> ESQN <del>F</del> KEFERFLKRMHGEAVPDLGL.APGT...Q...ETNPE...
Vitis2	508	RHLSAFTYLRISPVILMETHN <del>F</del> EFERFVKRMHGEAVPDLAC.VTQP...T...T...
Citrus2	508	RHLSAFTYLRISPVLT <del>D</del> GHHN <del>F</del> IEFERFVKRMHGEAVPDLRV.YTTE...G...NKECSK
Quercus2	507	RHLSAFTYLRISLVLMESHNF <del>M</del> EFERFVKRMHGEAVSDLRA.NSNE...K...QTKLQGT
Theobroma2	496	RHLSAFTYLRINPVL <del>M</del> ETHN <del>F</del> EFERFVT <del>R</del> MHGEAVPDLQS.FPNE...K...PAKPEGK

Beta1	572	EAAVALMH.....
Daucus1	562	EAAVALSH.....
Helianthus1	561	EAAVALTH.....
Sesamum1	573	EAAVALMH.....
Coffea1	577	EAAVALMH.....
Camelinal	568	EAAVALTH.....
Fragarial	571	EAAVALMH.....
Eucalyptus1	577	EAAVALRH.....
Quercus1	573	EAAVALMR.....
Citrus1	573	EAAVALMH.....
Vitis1	566	EAAVALMH.....
Ricinus1	567	EAAVALMH.....
Theobroma1	580	EAAVALSH.....
Glycine5	468	KIPIEV...LLEATK.....PTLPF...PWLPETDM.....KVDG.
Arabidopsis7		
Helianthus7		
Nelumbo27		
Aquilegia27		
Macleaya27		
Beta7		
Daucus7		
Eucalyptus7		
Fragaria7		
Sesamum7		
Coffea7		
Camellia7		
Vitis7		
Quercus7		
Ricinus7		
Theobroma7		
Citrus7		
Sesamum2		
Oryza27		
Setaria27		
Panicum27		
Sorghum27		
Zea27		
Brachypodium27		
Aegilops27		
Amborella27		
Nymphaea27		
Beta2	557	DFGLPSEATTLQDTKS...LL.....
Helianthus2		
Camellia2	551	EIPGSN.....
Coffea2		
Daucus2		
Eucalyptus2		
Ricinus2	554	TIRMVCWHAMAYDIKICRCLEIPVYCSYLVQLRFHFTLWVHLHDRCGCVVVSGS
Fragaria2	542	NLQ.....
Arabidopsis2		
Vitis2		
Citrus2	561	NQ.....
Quercus2	560	DDQVAA.....
Theobroma2	549	DGQVDA.....