

HvAG2	1	-----MVKESVSPGLG--SAGAAAEK
WAG1	1	-----MQILNEQLAAPST-----GLMVKESASPGSGSGSPGGAAEK
O _s MADS58	1	-----MHIYKEQEAEPSTGLMMPEPAPVASPGSGSGSGSVGAEKI
ZAG1	1	-----MHIREEEATPSTVTGIMSTLTSAGQQKLEKIPSGGGGSASVAGSAAE
ZMM2	1	-----MLNMMTDLSCGPSSKVKEQVAAAPTGGSD-----
ZMM23	1	LTSSFSSLSGSLPEERHYCHTTTTPPMLNMMTDLSCGPSSKAAKGGQPAATTGSG-----
O _s MADS3	1	-----MMNMMTDLSCGPSSMTELTAAAAPAGSGSSAAVAA
HvAG1	1	-----MMSMMADLSCGASGVTVNDHQLTAPAPEES--AV
WAG2	1	-----MSMMADLSCGASGVTVNDHQLAAPAPEDS--AA
FAR	1	-----MASLSDQSTEV
pMADS3	1	-----MEFQSDLTREI
AG	1	-----FLQLLQISYFPENHFPKKNKTFPFVLLPPTAITAYQSELGGDS
PLE	1	-----MEFPNQDSES-
FBP6	1	-----MVFPNQEFESS
SHP1	1	-----MEEGGSSHDA
SHP2	1	-----MEGGASNEVA
FBP7	1	-----
FBP11	1	-----
STK	1	-----
ZAG2	1	-----
ZMM1	1	-----
O _s MADS13	1	-----
O _s MADS21	1	-----MPLQVVFVSNLHSPPIDQLTARSSPLQIFRSV
ZMM25	1	-----

HvAG2	20	----MGRGRIEKRIENTTNRQLTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
WAG1	37	----MGRGRIEKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
O _s MADS58	43	G----SRGKIEIKRIENTTNRQVTFCKRRSGLLKKAYELSVLCDAEVALVVFSSRGRLY
ZAG1	48	RNNGGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
ZMM2	30	--RQGGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
ZMM23	55	--GDRQGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
O _s MADS3	36	GSSEKMGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
HvAG1	33	AGSEKMGRGRIEKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
WAG2	32	AGSEKMGRGRIEKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
FAR	12	SPERKIGRGKIEIKRIENKTNQVTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
pMADS3	12	SPQRKLGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
AG	44	SPLRKSGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
PLE	11	--LRKNGRGKIEIKRIENITNRQVTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
FBP6	12	SSQRKSGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
SHP1	11	ESSKKLGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSTRGRLY
SHP2	11	ESSKKIGRGKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSTRGRLY
FBP7	1	----MGRGKIEIKRIENNTNRQVTFCKRRNGLLKKAYELSVLCEAEIALIVFSTRGRVY
FBP11	1	----MGRGKIEIKRIENNTNRQVTFCKRRNGLLKKAYELSVLCEAEIALIVFSTRGRVY
STK	1	----MGRGKIEIKRIENSTNRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSTRGRLY
ZAG2	1	----MGRGRIEKRIENNTSRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
ZMM1	1	----MGRGRIEKRIENNTSRQVTFCKRRNGLLKKAYELSVLCDAEVALVVFSSRGRLY
O _s MADS13	1	----MGRGRIEKRIENTTSRQVTFCKRRNGLLKKAYELSVLCDAEVALIVFSSRGRLY
O _s MADS21	33	DRLINMGRGKIEIKRIENKTSRQVTFCKRRNGLLKKAYELAILCEAEIALIVFSSRGRLY
ZMM25	1	-----RNGLLKKAYELSVLCEAEIALIVFSTRGRLY

HvAG2	75	EYSNN-SVKATIERYKKATSDTSSAG--TVAEINAQHYQQESAKLRQQITTLQNSN-RTL
WAG1	92	EYSNN-SVKATIERYKKATSDTSSAG--TVAEINAQHYQQESAKLRQQITTLQNSN-RTL
OsMADS58	92	EYSNN-SVKETIERYKKANSDTSNAS--TVAEINAQHYQQEAAKLKQITNLQNSN-RTL
ZAG1	108	EYANN-SVKGTIERYKKATSDNSSAAG-TIAEVTIQHYKQESARLRQQIVNLQNSN-RAL
ZMM2	88	EYANN-SVKSTIERYKKANSDSSNSG--TVAEVNAQYQQEASSKLRQMIHSLQANTRNI
ZMM23	113	EYANN-SVKSTIERYKKANSDTSNAG--TVAEVNAQYQQEASSKLRQAIDSLQAN-RTI
OsMADS3	96	EYANN-SVKSTVERYKKANSDTSNAG--TVAEVNAQYQQEASSKLRQQISSLQANSRTI
HvAG1	93	EYSNN-SVKATIERYKKANSDTSNAG--TVAEVNAQYQQEASSKLRQQISSLQNSNSRSL
WAG2	92	EYSNN-SVKATIERYKKANSDTSNAG--TVAEVNAQYQQEASSKLRQQISSLQNSNSRSL
FAR	72	EYANN-SVKATIDRYKKASSDSSLNG--SISEANTQYQQEASKLRAQISNLQNQ-NRM
pMADS3	72	EYANN-SVKATIERYKKACSDSSNTG--SIAEANAQYQQEASKLRAQIGNLQNQ-RNF
AG	104	EYSNN-SVKGTIERYKKAISDNSNTG--SVAEINAQYQQESAKLRQQIISIQNSN-RQL
PLE	69	EYANN-SVRATIERYKKASADSSNSV--STSEANTQFYQQEANKLRRQIREIQTSN-RQM
FBP6	72	EYANN-SVRATIDRYKKHADSTSTG--SVSEANTQYQQEAAKLRRQIRDITQYN-RQI
SHP1	71	EYANN-SVRGTIERYKKACSDAVNPP--SVTEANTQYQQEASKLRRQIRDIQNSN-RHI
SHP2	71	EYANN-SVRGTIERYKKACSDAVNPP--TITEANTQYQQEASKLRRQIRDIQNLN-RHI
FBP7	56	EYSNN-NIRAIIDRYKKATVETSNAF--TTQELNAQFYQQESKLRQQIQLIQNSN-RHL
FBP11	56	EYANN-NIKGTIERYKKATAETSNAF--TTQELNAQFYQQESKLRQQIQLLQNTN-RHL
STK	56	EYANN-NIRSTIERYKKACSDSTNTS--TVQEINAAYYQQESAKLRQQIQTIQNSN-RNL
ZAG2	56	EYANN-SVKATVERYKKAHTVGSSSGPPLLEHNAQQFYQQESAKLRNQIQMLQNTN-RHL
ZMM1	56	EYANN-SVKATIERYKKAHAVGSSSGPPLLEHNAQQFYQQESVKLNRNQIQMLQNTN-RHL
OsMADS13	56	EYSNNNVKATIDRYKKAHACGSGAPLIEVNAQQYQQESAKLRHQIQMLQNTN-KHL
OsMADS21	93	EFSNVNSTRSTIERYKKASASTSGAP-VIDVNSHQFYQQEAAKMRHQIQTLQAN-RHL
ZMM25	32	EYS-SNSVRSTIERYKKASASTSGTAP-VTDVNSLQFYQQEAAKLRRQIQTLQNSN-RHL
HvAG2	131	IGDTMATMSHRDLKQLEGRLDKGLGKIRARKNELLSAEI EYMQRREMEELQNNNFYLREK
WAG1	148	IGDTMATMSHRDLKQLEGRLDKGLGKIRARKNELLSAEI EYMQRREMEELQNNNFYLREK
OsMADS58	154	VGDNITTMNHRELKQLEGRLDKGLGKIRARKNELLSAEI EYMQRRETEELQNDNMYLRSK
ZAG1	165	IGDSITTMHRELKQLEGRLDKGLGKIRARKNELLSAEI EYMQRRETEELQNDNMYLRSK
ZMM2	145	VGDSIHTMGLRDLKQMEGKLEKAIKIRARKNELLSAEI EYVDYMQKREMDLQTDNMYLRSK
ZMM23	169	VGDSIHTMGLRDLKQMEGKLEKAIKIRARKNELLSAEI EYVEYMQKREMDLQTDNMYLRSK
OsMADS3	153	VGDSINTMSLRDLKQVENRLEKGIKIRARKNELLSAEI EYVEYMQKREVELQNDNMYLRSK
HvAG1	150	VRDSVSTMTLRDLKQLEGRLEKGIKIRARKNELLSAEI EYVEYMQKREMEELHNDNIYLRSK
WAG2	149	VRDSVSTMTLRDLKQLEGRLEKGIKIRARKNELLSAEI EYVEYMQKREMEELQNDNIYLRSK
FAR	128	LGESLGALSLRELKNLESRVERGISRIRSKKNELLSAEI EYMQKRQEIDLHNNQYLRAK
pMADS3	128	LGESLAALNLRDLRNLEKGIKIRAKKNELLSAEI EYMQKREIDLHNNQYLRAK
AG	160	MGETIGSMSPKELRNLEGRLEKGIKIRSKKNELLSAEI EYMQKREVDLHNDNQILRAK
PLE	125	LGEGVSNMALKDLKSTEAKVEKAIKIRSKKNELLSAEI EYMQKRELELHNNMFLRAK
FBP6	128	VGEALSSLSRGLKNLEKLEKAIKIRVRSKKNELLSAEI ELMQKREIEMQNANMYLRAK
SHP1	127	VGESLGSNFKELKNLEGRLEKGIKIRVRSKKNELLSAEI EYMQKREMEELQNDNMYLRAK
SHP2	127	LGESLGSNFKELKNLESRLEKGIKIRVRSKKNELLSAEI EYMQKREIEMQNANMYLRSK
FBP7	112	VGEGLSSLNRELKQLENRLEKGIKIRSKKHEMILAESEDLQKREIQLQENAFRLRSK
FBP11	112	VGEGLSALNVRELKQLENRLEKGIKIRSKKHEMILAEENLQKREIQLQENAFRLRSK
STK	112	MGDSLSSLSVKELKQVENRLEKAIKIRSKKHELLLSAEI EYMQKREIEMQNANMYLRTK
ZAG2	114	VGDSVGNLSLRELKQLESRLEKGIKIRARKSELLAAEIN YMAKRETEELQNDHMTLRTK
ZMM1	114	VGDSVGNLSLRELKQLESRLEKGIKIRARKSELLAAEIN YMAKRETEELQNDHMTLRTK
OsMADS13	115	VGDNVSNLSLRELKQLESRLEKGIKIRARKNELLSAEI EYMQKREIEMQNANMYLRTK
OsMADS21	151	IGESIGNMTAKELKSLNLEKGIKIRSKKHELLLSAEI EYMQKREADLQNDNMYLRAK
ZMM25	89	MGESTGNMTAKELKGLERLEKGIKIRSKKHELLLSAEI EYMQKREADLHNNMFLRAK

HvAG2	190	VAETERGQQTLNMMGAASTSNEYDQNM	-----	QCDPRTFLQFNIMQQ-PQYY
WAG1	207	VSETERGQQTLNMMGAASTSNEYEQNM	-----	HCDPRTFLQFNFMQQQPQYY
OsMADS58	213	VAESERG-LQTVNMMGSASTS-EYVQNM	-----	HYDPRNFLQFNIMHQ-PQYY
ZAG1	224	VDENERA-QQTANMMGAPSTS-EYQQHGF	TP-----	YDPIRSFLQFNIVQQ-PQFY
ZMM2	204	IAESNETGQPAMHMTMGAPPTSEYDHMA	-----	PFDSRNFLQVSMPPQHYSHL
ZMM23	228	IAENNETGQPPMNIG-LPSTSEYDHMAP	-----	FVDSRNFLQVNMQQQPQHYS
OsMADS3	212	VVE-NERGQQPLNMMGAA-STSEYDHMVNN	-----	PYDSRNFLQVNMQQQPQHYS
HvAG1	209	VSENER-GQQPMNMMASGTSSEYDHMVA	-----	PYDSRNFLQVNMQQQQ-HY
WAG2	208	VSENER-GQQPVNMMASGSASSEYDHMVS	-----	PYDSRNFLQANIMQQQQQHY
FAR	188	IAESERVGGQHMNLMGGSSGYEQLVETQ	-----	PFDAARNYLQVNLQPNNDYP
pMADS3	187	IAETERSQ-QMNLMPGSSS-YDLVPPQQ	-----	SFDAARNYLQVNLQTNNHYP
AG	219	IAENERNN-PSISLMPGSSNYEQLMPPPTQSQ	-----	PFDSRNIFYQVAALQPNHHY
PLE	184	IAEGERAQ-QQMNLMPGS-----	DYQPMTSQ-----	SYDVRNFLPMNLMENPQQQY
FBP6	187	IAEVERAT-QQMNLMHGGGSEYQQPMSSTSQ	-----	PYDARNFLPVNLLLEPNP-HY
SHP1	186	IAEGARLNPDQQESSVIQGTTVYESGVSSHQS	-----	QHYNRNYIPVNLLEPNQFS
SHP2	186	ITERTGLQ-QQESSVIHQGTVYESGVSSHQS	-----	GQYNRNYIAVNLLEPNQSS
FBP7	171	IAENERLQELSMMPAGQEYNAIQ	-----	QYLARNMLQLNMMEG-VPS
FBP11	171	IAENERLQELSMMPATGQEYNAFNQ	-----	QYFARMLQLNMM-EGGVPSY
STK	171	VAEVERYQHHHQMVGSEINAIE	-----	ALASRNYFAHSIMTAGSGSG
ZAG2	173	IEEGEQQLQVTVARSVAAAAATNLELNPFL	EMDTKCFFTGGPFATLDMKCF	LPGLSQ
ZMM1	173	IEEGEQQLQVTVARSAAMELQAAAAQQQ	QNPFAVAAAQLDMKCF	FLNLF
OsMADS13	174	IAEEEQQLQVTVARSAAELQAAAAQQQ	QNPFAVAAAQLDMKCF	FLNLF
OsMADS21	210	VAEAERAEHDDQAAEDDEMAPAPAVGG	SSSGTELEALPATFDTREYQP	PAPVSMRLG
ZMM25	148	VAEAERALEQ-EAAEDQTMMPAAVRG	-----	ATTELKALPASFDASGYQYQQHQHVAA
HvAG2	238	TQQEDRKTLSNVER	-----	
WAG1	256	SQQEDRKSLSNVR	-----	
OsMADS58	259	PEQEDRKAFMSDER	-----	
ZAG1	272	SQQEDRKDFNDQGG	-----	
ZMM2	252	QPTTLQLG	-----	
ZMM23	276	HLSAATNDPPTRMMLRIFGQQSMHASTQ	-----	
OsMADS3	260	HQLQPTTLQLGQQPAFN	-----	
HvAG1	255	SQQLQPTALQLGQQYFN	-----	
WAG2	256	SQQLQPTALQLGQQYFN	-----	
FAR	237	---RQDQLPLQLV	-----	
pMADS3	233	---RQDQPPLQLV	-----	
AG	271	SSAGRQDQALQLV	-----	
PLE	229	S---RHDQALQLV	-----	
FBP6	237	S---RQDQALQLV	-----	
SHP1	239	G---QDQPPLQLV	-----	
SHP2	237	N---QDQPPLQLV	-----	
FBP7	212	YPLPSDKKSLDLE	-----	
FBP11	215	DPLPAHDKKSLQLE	-----	
STK	215	NGGSYSDDPKKILHLG	-----	
ZAG2	233	MLEAQQRQMLATELNLG--YQLAPP	GSDAANNPHHF----	
ZMM1	231	MLEAQQRQMLATELNLG--YQLAPP	DTVANNPQQF-----	
OsMADS13	234	AVAAQRQQIIPTELNLGYHHHLAIP	GATAADAPPPHF-----	
OsMADS21	270	AAAAAAQYSS-----	DHHQALHLGYFKVDSGKGLL--	
ZMM25	203	ASAASSQYAEQPQQQEYHHQALHL	GYHVKIDSAADKGF	

Supplemental Figure 2 Alignment of C-class genes.