

SmMYC2	.....MTIYSLF..TMNIWNTTSDINVMMAHMS..LL	32
SIMY2	.....MTIYSLF..TMNIWNTTSDINVMMAHMS..LL	32
VvMYC2	MSVSSSGSLSSAMVSLSLVRLPLFPPLPLPLFLFLKWFYTAFLPTAENLNFLLSVVFLVYGMTEYFVE..TMNIWT....DINASMMAHMS..LL	97
MdMYC2	.....MTIYRIEPTANWTI....DINASIMMAHMS..LL	30
CsMYC2	.....MTIYRICSTMNWTI....DINASMMAHMS..LL	30
AtMYC2	.....MTIYRIQCFMNIWTI....DINASMMAHMS..LL	31
AaMYC2	.....TMNIWTI....DINASMMAHMS..LL	22
GbMYC2	.....MAEQTIAN..DESFANNSMMAHMS...	24
TcMYC2a	.....MARCSIAN..SDNLNSMMAHMS...	24
JID		
SmMYC2	SFWANTSTSTISAVVSGVNSNLIPLNN.NIPSVFPP..SACASTVTASAAVDASKMPFFNQ..TTCRCRQLIDLCAREHTWTYAIFWQSSVVFSTFSVLWQIG	132
SIMY2	SFWAIN..NTISAAVVGNSNLIHASNTPSVFAFSSSTASLTISAATVDASKMPFFNQ..TTCRCRQLIDLCAREHTWTYAIFWQSSVVFSSSVLWQIG	133
VvMYC2	SSSSWGFSSAASSTIPAPLPSRN.....LAQSQFSAVFNQ..TTCRCRQLIEGARESATYAIFWQSS.VDFSGASILLWQIG	174
MdMYC2	TSF..WAAPFACPTLQPAHAFVQF..CSSASTSDYPK.....FPVAQFQFSVTFNQ..TTCRCRQLIDLCARESWTYAIFWQSS.YDYSGAAVLWQIG	120
CsMYC2	SSI..WAAPITPTITTTTSTQPIQLHSPASTSAAPQC.....CQCPFPPLFPFPFQVAFNQ..TTCRCRQLIEGARESWTYAIFWQSS.YDYSGASVLWQIG	126
AtMYC2	STI..WPEASTITTTTATTETITTFE.....AMEIFAQAGFNQ..TTCRCRQLIEGHTWYAIFWQSS.YDYSGASVLWQIG	106
AaMYC2	FSI..WGTATATACAGAGGLVFPAS.....SSASTSAAGSEWNQ..TTCRCRQLIDNARESWTYAIFWQSSGVYTAESVLWQIG	104
GbMYC2	.....SSSNVCADICNST.....MAFNQ..TTCRCRQLVETDAITWTYAIFWQSS.YDAIGTVILWQIG	84
TcMYC2a	.....SSSS.SSAENIRMD.....PNLSI..TTCRCRQLVETASITWTYAIFWQSS.CTVNGAPQLWQIG	83
JID		
SmMYC2	MYKGEEL..KAKRKSAVSSF..AYITEGERRKKVLRRLNSISG.IQV.GNDDA....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	227
SIMY2	MYKGEEL..KAKRKLEVSSEF..AYIAEGERRKKVLRRLNSISG.APE..ETDDA....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	228
VvMYC2	MYKGEEL..KGRKRMTIPS.....SVSEGERRRKKVLRRLNSISG.IAS..SSDDA....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	266
MdMYC2	YKIDERT..KVKAKAKTTI....TSPAEGERRKKVLRRLNSISG.ATISADDA....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	214
CsMYC2	MYKGEEL..KGRGRKASVY....SSPAEGERRKKVLRRLNSISG.IAF..APLEA....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	220
AtMYC2	MYKGEEL..KANPBRSSSPFPSTPADGERRRKKVLRRLNSISG.IVA..ESDDA....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	203
AaMYC2	MYKGEVN..KPTVESVT....SLAPGERRRKKVLRRLNSISG.IHS..CENET....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	196
GbMYC2	MYKGRFLPEEEELKRRSHMTVSPAERRRKKVLRRLNSISG.IDEPTLQSSNTS.VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	187
TcMYC2a	MYKGRFNAEEELCLRMFSRMITITPADGERRRKKVLRRLNSISG.IADETNQ....VDEEVIDDEWFELISMTCFSVSGSLHGAALYSSSPINWAAEKIAA	179
SmMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	321
SIMY2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	322
VvMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	363
MdMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	310
CsMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	321
AtMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	296
AaMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	288
GbMYC2	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	278
TcMYC2a	SECHVFACQGLCTIVCHESANCVVEGSGTEIIFQSSILMNKRVFLFNENNLICGSGWAVQ.....PESTPSALWIDFTSSGMVFRSLNTVQTN..S	270
SmMYC2	VPSNSNKKIAYG..NESNHCSGNGHSSCNQCCQN.....NPFQCCQCGFTFRELNFSEFG..FDGSSNFRN...GNSSVSKFESGEIINFGLSIKKSACSQN	412
SIMY2	VPSNSNKKIAYG..NENNHCSGNGHSSCNQCCQN.....NPFQCCQCGFTFRELNFSEFG..FDGSSNFRN...GNSSVSKFESGEIINFGLSIKKSACSQN	413
VvMYC2	ASNPIGNQCNSKS.IQFEN..FSSSLTENPSTIMHNE....CQCCQIHTQCGFTFRELNFSEFG..FDGSSNFRN...GNLHSLKEESGEIINFGLSIKKSACSQN	454
MdMYC2	ATTNINSLQISKE.VQFENHSSSSLSSENPSFQVQLQCCQCCQCCQCSFTFRELNFSEFG..FDGSSNFRN...GNLHSLKEESGEIINFGLSIKKSACSQN	411
CsMYC2	VPSNTNCCQTSKSTVQFEN..FSSSLTENPSTIMHNE....CQCCQIHTQCGFTFRELNFSEFG..FDGSSNFRN...GNLHSLKEESGEIINFGLSIKKSACSQN	412
AtMYC2	AFSSSSQIFSKS.IQFEN..GSSSTITENENLLPTE.....SPVHSQIQ.....NEKENNTHSRELNFES...TSSSTLVKRESGEIINFGLSIKKSACSQN	381
AaMYC2	EMKLTGCVRAVE.....EKETSVVPLNNSVH.....ENTIKSVVN...NSHQE..LCSFELN...FSCFGCKEESVVLNVEGEN.....	359
GbMYC2	LVNNAEIQCFSNT.....ILSQELSVAFESILSNE.....SLHQEKLSDLDQ..RASIKL...LKSILYT..CGHKIEAVETAAPRMSERLNEFEQNAIG	363
TcMYC2a	VVSNAEVCSDLS.....ALQELLEFTNFGSVID.....PHLSVDELQCSLVRE...LCSIMHH...CVCKTEVEFPVTHIMTMNGVEQNCASVG	352
SmMYC2	GNLFSGCSCFCAV...EENN.....KNKKRSATSPGSN...EEGLSHISGTVLSSGMKSGGGG...EDSDHSDIASVVKEDSSRVVEERFEEK	497
SIMY2	GNLFSGCSCFCAV...EENN.....KNKKRSATSPGSN...EEGLSHISGTVLSSGMKSGGGG...EDSDHSDIASVVKEDSSRVVEERFEEK	499
VvMYC2	ENMFSGSCVVAE...ENKK.....RRSFTSPGSA...EEGLSHISGTVLSSGMKSGGGG...EDSDHSDIASVVKEDSSRVVEERFEEK	536
MdMYC2	GKLFHGHSCMTAA...EENN.....SKKKRSPSPGSN...DEGLSFSSGCVLSSGVKSSGG...ADSDHSDIASVVKEDSSRVVEERFEEK	495
CsMYC2	GNLFSGCSCFAAE...EENN.....KNKKRSATSPGSN...EEGLSHISGTVLSSGVKSSGGT...EDSDHSDIASVVKEDSSRVVEERFEEK	508
AtMYC2	FSSYSQCTCFE...NK.....KKRSMVLNEIK...VLSFGD.....KTAGE...EDSDHSDIASVVKEDSSRVVEERFEEK	438
AaMYC2	.....NK.....KKKAPALGIN...EGGMSHSSGMVFPSTIVKSGGVMSAADFDGSDIASIGREVEESRLVVEERFEEK	429
GbMYC2	.....FKGSDK...IKKFEESFGLLENFAGILVGGIRSSVEESLSDVETASFKLSES...TVVEERFEEK	423
TcMYC2a	LLAKPTRESVETTSIPK.....QNGSAGGVNGAEKNASRRRTETLTHLPENESGIAVGFSSSIESEHSDVETASFKLSES...TVVEERFEEK	439
bHLH		
SmMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	598
SIMY2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	596
VvMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	639
MdMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	595
CsMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	608
AtMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	534
AaMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	532
GbMYC2	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	525
TcMYC2a	RGRKJ'ANGREEPINHVEAERCRRKLNQFYAIRAVVENVSKMKKASILLDATSYINEL..SKLCTTESDKREILKSCVEILKKEILASKDSRRFP..PFP.KQILL	541
SmMYC2	RMSSTHCKRIVELDIDVKIIGWDAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	691
SIMY2	RMSSTHCKRIVELDIDVKIIGWDAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	689
VvMYC2	RMSNHGSKIVELDIDVKIIGWDAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	732
MdMYC2	IK..GCCSKILLDIDVKIIGWDAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	697
CsMYC2	VSNLGGGSKILLDIDVKIIGWDAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	702
AtMYC2	SSS.CSSILPVGVEIEVKIIGWDAMIRVSSRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	623
AaMYC2	MTNFNSNPIILNDIDVKIIGWDAMIRVSSRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	625
GbMYC2	LIRGFELGRFFSELEIRVILGREAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	620
TcMYC2a	LIRGSGGKFFELGSEVRLGCEAMIRICCKRNHHEARINMAIMELDLVHFAASYVND..LMICQATVKMGSRHYTEGLRVAITSKIAEAS.	634

Supplementary Fig. S2 Alignment of SmMYC2 with the COI1 proteins from the other plants.

Black highlighted residues indicated identical residues, and pink and blue boxes indicated similar residues. JID and bHLH domain was boxed.