

ESM 5 Summary of R2R3-MYB superfamily genes and their predicted function in *C. speciosa*.

Group code	Name of clade or subfamily	Nomenclature used for this paper	Gene ID	Length of CDS	Length of protein sequence	PI (aa)	MW (kDa)	Localization	Corresponding nomenclature for MYB members in <i>Arabidopsis</i>	Annotation in Nr database	Predicted function		
1	C5 (S25)	CsMYB9	CL11989.Contig1_Al	731	180	10.11	21.01	Nuclear	AtMYB98	PREDICTED: myb-related protein 3R-1-like isoform X1 [<i>Lupinus angustifolius</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB10	CL11989.Contig2_Al	756	180	10.11	21.01	Nuclear	AtMYB98	PREDICTED: myb-related protein 3R-1-like isoform X1 [<i>Lupinus angustifolius</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB11	CL11989.Contig3_Al	3673	1050	5.11	116.24	Nuclear	AtMYB98	PREDICTED: myb-related protein 3R-1-like isoform X2 [<i>Cicer arietinum</i>] myb-related protein 308-like [<i>Glycine max</i>] >KHN31220.1 Myb-related protein 308	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB18	CL1330.Contig2_All	1258	572	8.51	62.96	Nuclear	AtMYB4	[<i>Glycine soja</i>] >KRH63931.1 hypothetical protein GLYMA_04G205100 [<i>Glycine max</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB19	CL13981.Contig1_Al	2314	572	8.51	62.96	Nuclear	AtMYB98	PREDICTED: myb-related protein B [<i>Cicer arietinum</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB20	CL13981.Contig2_Al	2091	476	6.88	53.59	Nuclear	AtMYB98	PREDICTED: myb-related protein B [<i>Cicer arietinum</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB21	CL1416.Contig10_Al	2415	478	7.82	53.86	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB22	CL1416.Contig11_Al	1347	333	9.11	38.56	Nuclear	AtMYB88	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB23	CL1416.Contig12_Al	2892	477	8.69	53.95	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB24	CL1416.Contig13_Al	2352	478	8.32	54.07	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB25	CL1416.Contig14_Al	2303	478	8.54	54.07	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB26	CL1416.Contig15_Al	2879	477	8.54	53.96	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>] transcription factor MYB124-like isoform X1 [<i>Cajanus cajan</i>] >XP_020214325.1 transcription factor MYB124-like isoform X1 [<i>Cajanus cajan</i>] >XP_020214334.1	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB27	CL1416.Contig16_Al	2426	476	8.47	53.9	Nuclear	AtMYB124	transcription factor MYB124-like isoform X2 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB28	CL1416.Contig17_All	2787	334	9.4	38.63	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB29	CL1416.Contig20_All	1810	442	6.45	49.86	Nuclear	AtMYB88	PREDICTED: transcriptional activator Myb-like isoform X1 [<i>Cicer arietinum</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB30	CL1416.Contig3_All	2009	334	9.4	38.61	Nuclear	AtMYB88	PREDICTED: transcriptional activator Myb-like isoform X1 [<i>Cicer arietinum</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB31	CL1416.Contig4_All	1608	442	8.08	50.03	Nuclear	AtMYB88	PREDICTED: transcriptional activator Myb-like isoform X1 [<i>Cicer arietinum</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB32	CL1416.Contig5_All	2009	477	6.88	53.8	Nuclear	AtMYB88	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB33	CL1416.Contig6_All	2468	477	6.88	53.68	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB34	CL1416.Contig7_All	2915	477	8.69	53.95	Nuclear	AtMYB124	PREDICTED: transcriptional activator Myb-like isoform X1 [<i>Cicer arietinum</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB35	CL1416.Contig8_All	3293	333	9.11	38.56	Nuclear	AtMYB124	transcription factor MYB124 isoform X1 [<i>Cajanus cajan</i>]	Embryogenesis (seed, endosperm and cell differentiation)		
		CsMYB96	Unigene39024_All	1512	426	8.33	48.07	Nuclear	AtMYB98	PREDICTED: transcription factor MYB76-like isoform X2 [<i>Cicer arietinum</i>] myb transcription factor [<i>Medicago truncatula</i>] >KEH39973.1 myb transcription factor	Embryogenesis (seed, endosperm and cell differentiation)		
		C13 (S14)	C13 (S14)	CsMYB53	CL2723.Contig1_All	1255	370	7.76	41.18	Nuclear	AtMYB84	[<i>Medicago truncatula</i>] myb transcription factor [<i>Medicago truncatula</i>] >KEH39973.1 myb transcription factor	Epidermal cells
				CsMYB54	CL2723.Contig2_All	1410	379	8.9	42.29	Nuclear	AtMYB84	[<i>Medicago truncatula</i>]	Epidermal cells
				CsMYB1	CL10294.Contig1_Al	1911	311	9.27	33.71	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Cicer arietinum</i>]	Responses to biotic and abiotic stresses
				CsMYB2	CL10294.Contig2_Al	2025	311	9.27	33.71	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Cicer arietinum</i>]	Responses to biotic and abiotic stresses
CsMYB3	CL10294.Contig3_Al			2167	311	9.27	33.71	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Cicer arietinum</i>]	Responses to biotic and abiotic stresses		
CsMYB4	CL10294.Contig4_Al			1768	317	9.28	33.72	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Cicer arietinum</i>]	Responses to biotic and abiotic stresses		
CsMYB80	Unigene1103_All			1008	220	9.59	24.51	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Ziziphus jujuba</i>]	Responses to biotic and abiotic stresses		
CsMYB82	Unigene12129_All			1707	353	5.7	37.94	Nuclear	AtMYB1	transcription factor MYB1 [<i>Cajanus cajan</i>]	Responses to biotic and abiotic stresses		
CsMYB83	Unigene18033_All			2961	351	5.47	37.71	Nuclear	AtMYB1	transcription factor MYB1 [<i>Cajanus cajan</i>]	Responses to biotic and abiotic stresses		
CsMYB85	Unigene18574_All			2518	351	5.47	37.71	Nuclear	AtMYB1	transcription factor MYB1 [<i>Cajanus cajan</i>]	Responses to biotic and abiotic stresses		
CsMYB94	Unigene30903_All	1162	283	7.04	31.25	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Cicer arietinum</i>] transcription factor MYB1-like [<i>Cajanus cajan</i>] >KYP48727.1 Transcription factor	Responses to biotic and abiotic stresses				
C2(S22)	C2(S22)	CsMYB97	Unigene42113_All	1614	343	6.01	37.15	Nuclear	AtMYB109	MYB44 [<i>Cajanus cajan</i>]	Responses to biotic and abiotic stresses		
		CsMYB99	Unigene45628_All	1503	226	8.35	24.73	Nuclear	AtMYB77	PREDICTED: transcriptional activator Myb-like [<i>Cicer arietinum</i>]	Responses to biotic and abiotic stresses		
		CsMYB63	CL4544.Contig1_All	997	206	9.68	22.99	Nuclear	AtMYB14	PREDICTED: myb-related protein Myb4-like [<i>Glycine max</i>] >KHN14820.1 Myb-related protein Myb4 [<i>Glycine soja</i>] >KRH34142.1 hypothetical protein GLYMA_10G165800	Response to cold stress		
		CsMYB64	CL4544.Contig2_All	1107	206	9.68	23.1	Nuclear	AtMYB14	PREDICTED: myb-related protein Myb4-like [<i>Glycine max</i>] >KHN14820.1 Myb-related protein Myb4 [<i>Glycine soja</i>] >KRH34142.1 hypothetical protein GLYMA_10G165800	Response to cold stress		
		CsMYB65	CL6186.Contig1_All	1438	271	5.1	30.87	Nuclear	AtMYB14	PREDICTED: myb-related protein Myb4-like [<i>Cicer arietinum</i>]	Response to cold stress		
		CsMYB66	CL6186.Contig2_All	1463	267	5.64	30.53	Nuclear	AtMYB15	PREDICTED: myb-related protein Myb4-like [<i>Cicer arietinum</i>]	Response to cold stress		
		CsMYB67	CL6186.Contig3_All	1267	271	5.64	30.9	Nuclear	AtMYB15	PREDICTED: myb-related protein Myb4-like [<i>Cicer arietinum</i>] transcription factor MYB14-like [<i>Cajanus cajan</i>] >KYP74659.1 Myb-related protein	Response to cold stress		
		CsMYB68	CL6186.Contig5_All	1385	272	5.25	31.2	Nuclear	AtMYB15	Myb4 [<i>Cajanus cajan</i>] transcription factor MYB14-like [<i>Cajanus cajan</i>] >KYP74659.1 Myb-related protein	Response to cold stress		
		CsMYB69	CL6186.Contig6_All	1376	272	5.25	31.2	Nuclear	AtMYB15	Myb4 [<i>Cajanus cajan</i>] transcription factor MYB14-like [<i>Cajanus cajan</i>] >KYP74659.1 Myb-related protein	Response to cold stress		
		CsMYB87	Unigene21235_All	1431	272	5.23	30.89	Nuclear	AtMYB15	Myb4 [<i>Cajanus cajan</i>]	Response to cold stress		
2	C15 (S2)	CsMYB95	Unigene36413_All	1037	282	7.17	32.43	Nuclear	AtMYB14	MYB [<i>Ammopiptanthus nanus</i>] myb transcription factor [<i>Medicago truncatula</i>] >KEH23924.1 myb transcription factor	Response to cold stress		
		CsMYB101	Unigene699_All	1257	293	4.63	32.84	Nuclear	AtMYB15	[<i>Medicago truncatula</i>]	Response to cold stress		
		CsMYB55	CL3302.Contig1_All	1551	292	8.15	32.88	Nuclear	AtMYB2	PREDICTED: transcription factor MYB108-like [<i>Cicer arietinum</i>]	Stress responses		
		CsMYB56	CL3302.Contig2_All	1610	292	8.38	32.89	Nuclear	AtMYB2	PREDICTED: transcription factor MYB108-like [<i>Cicer arietinum</i>]	Stress responses		

C14 (S3)	CsMYB90	Unigene24590_All	1507	371	4.49	41.69	Nuclear	AtMYB63	Myb-related protein Zm1 [<i>Glycine soja</i>]	Lignin biosynthesis	
C3	CsMYB47	CL10294.Contig1_AI	1911	264	5.87	30.05	Nuclear	AtMYB73	PREDICTED: transcription factor MYB44-like [<i>Cicer arietinum</i>]	Unknown	
	CsMYB76	CL9518.Contig1_All	931	258	9.08	29.97	Nuclear	AtMYB79	Transcription factor MYB48 [<i>Glycine soja</i>]	Unknown	
5	CsMYB77	CL9518.Contig2_All	1314	255	7.45	29.55	Nuclear	AtMYB79	R2R3-MYB factor [<i>Lablab purpureus</i>] PREDICTED: myb-related protein Myb4-like [<i>Glycine max</i>] >KRH56056.1 hypothetical	Unknown	
	CsMYB84	Unigene18398_All	1025	240	6.05	27.56	Nuclear	AtMYB9	protein GLYMA_06G299900 [<i>Glycine max</i>] PREDICTED: myb-related protein Myb4-like [<i>Glycine max</i>] >KRH56056.1 hypothetical	Unknown	
	C7	CsMYB100	Unigene6882_All	2952	240	6.05	27.59	Nuclear	AtMYB9	protein GLYMA_06G299900 [<i>Glycine max</i>] myb transcription factor [<i>Medicago truncatula</i>] >AES76277.2 myb transcription factor	Unknown
	CsMYB50	CL2222.Contig2_All	1251	360	6.65	40.72	Nuclear	AtMYB52	[<i>Medicago truncatula</i>] transcription factor MYB14-like isoform X1 [<i>Cajanus cajan</i>] >KYP50300.1 Myb-related	Unknown	
	CsMYB51	CL2322.Contig2_All	1296	352	6.42	39.81	Nuclear	AtMYB14	protein Myb4 [<i>Cajanus cajan</i>] transcription factor MYB14-like isoform X1 [<i>Cajanus cajan</i>] >KYP50300.1 Myb-related	Unknown	
C16	CsMYB52	CL2322.Contig3_All	1376	358	6.35	40.49	Nuclear	AtMYB14	protein Myb4 [<i>Cajanus cajan</i>] myb transcription factor [<i>Medicago truncatula</i>] >AES99236.1 myb transcription factor	Unknown	
	CsMYB5	CL11081.Contig1_AI	679	116	9.4	13.49	Nuclear	AtMYB20	[<i>Medicago truncatula</i>] myb transcription factor [<i>Medicago truncatula</i>] >AES99236.1 myb transcription factor	Unknown	
	CsMYB98	Unigene45467_All	623	107	9.49	12.33	Nuclear	AtMYB20	[<i>Medicago truncatula</i>] PREDICTED: transcription repressor MYB6-like [<i>Vigna angularis</i>] >KOM52988.1 hypothetical protein LR48_Vigan09g164700 [<i>Vigna angularis</i>] >BAT87828.1	Unknown	
	CsMYB15	CL12323.Contig2_AI	1195	178	9.95	20.75	Nuclear	AtMYB4	hypothetical protein VIGAN_05124000 [<i>Vigna angularis</i> var. <i>angularis</i>]	Unknown	