

Table S5. Distribution of co-expression modules in each individual ortholog clade in *Agave americana*. The numbers represent the observed and expected (in parentheses) number of genes in each pairwise combination of co-expression modules and ortholog clades.

Module	NVP:C ₃ :CAM:C ₄	NVP:C ₃ :CAM	NVP:CAM:C ₄	NVP:CAM	C ₃ :CAM:C ₄	C ₃ :CAM	CAM:C ₄	CAM-only	Total
M01	1796 (1543) ^a	34 (34)	0 (1)	3 (11)	318 (409) ^b	60 (96) ^b	11 (10)	213 (330) ^b	2435
M02	404 (393)	15 (9)	0 (0)	1 (3)	87 (104)	28 (25)	3 (3)	82 (84)	620
M03	419 (414)	12 (9)	0 (0)	4 (3)	107 (110)	25 (26)	2 (3)	85 (89)	654
M04	201 (278) ^b	12 (6)	0 (0)	2 (2)	113 (74) ^a	19 (17)	1 (2)	90 (59) ^a	438
M05	251 (215)	1 (5)	0 (0)	0 (2)	38 (57)	7 (13)	1 (1)	42 (46)	340
M06	215 (217)	1 (5)	0 (0)	1 (2)	63 (57)	16 (14)	0 (1)	46 (46)	342
M07	520 (580)	8 (13)	1 (0)	7 (4)	189 (154) ^a	40 (36)	3 (4)	147 (124)	915
M08	90 (112)	1 (2)	0 (0)	2 (1)	47 (30) ^a	6 (7)	0 (1)	31 (24)	177
M09	466 (521)	12 (12)	1 (0)	8 (4)	160 (138)	39 (33)	1 (4)	136 (112)	823
M10	1434 (1547) ^b	47 (34)	1 (1)	10 (11)	404 (410)	104 (97)	11 (10)	430 (331) ^a	2441
M11	200 (272) ^b	5 (6)	0 (0)	4 (2)	123 (72) ^a	24 (17)	1 (2)	72 (58)	429
M12	113 (151) ^b	1 (3)	0 (0)	2 (1)	47 (40)	19 (9)	0 (1)	56 (32) ^a	238
M13	592 (603)	10 (13)	1 (0)	3 (4)	163 (160)	50 (38)	5 (4)	127 (129)	951
M14	457 (471)	10 (10)	0 (0)	8 (3)	150 (125)	24 (29)	3 (3)	92 (101)	744
M15	78 (103)	1 (2)	0 (0)	1 (1)	38 (27)	14 (6)	3 (1)	27 (22)	162
M16	122 (136)	3 (3)	0 (0)	1 (1)	39 (36)	7 (9)	1 (1)	42 (29)	215
other	1629 (1432) ^a	27 (32)	1 (1)	9 (11)	295 (379) ^b	79 (89)	15 (10)	205 (306) ^b	2260

^aOverrepresentation ($P < 0.01$, cumulative Poisson distribution) of co-expression modules in each ortholog clade. ^bUnderrepresentation ($P < 0.01$, cumulative Poisson distribution) of co-expression modules in each ortholog clade.

Note: NVP:C₃:CAM:C₄ represents orthologs shared by NVP, C₃, CAM and C₄ (i.e. non-vascular plants). NVP:C₃:CAM represents orthologs shared only by NVP, C₃ and CAM. NVP:CAM:C₄ represents orthologs shared only by NVP, CAM and C₄. NVP:CAM represents orthologs shared only by NVP and CAM. C₃:CAM:C₄ represents orthologs shared only by C₃, CAM and C₄. C₃:CAM represents orthologs shared only by C₃ and CAM. CAM:C₄ represents orthologs shared only by CAM and C₄. CAM-only represent orthologs only in CAM species.