

**Supplementary Table 2s.** The mean relative expression value of the Chinese chestnut MADS-box genes in different organs

Mean relative expression value	Mixed floral bud	Early female flower	Late female flower	Stigma	Ovary	Staminate catkin	Male floral cluster	Stamen	Leaf	Cotyledon
<i>CmMADS01</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000088	0.000215	0.000000	0.000000	0.000000
<i>CmMADS02</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000184	0.000844	0.000000	0.000021	0.000226
<i>CmMADS03</i> ( $M\alpha$ )	0.000631	0.001081	0.000520	0.000345	0.000774	0.002600	0.008138	0.002099	0.000374	0.001200
<i>CmMADS04</i> ( $M\alpha$ )	0.001844	0.000669	0.000367	0.000768	0.001052	0.000650	0.001083	0.001028	0.002078	0.003050
<i>CmMADS05</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS06</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS07</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS08</i> ( $M\alpha$ )	0.000109	0.000046	0.000089	0.000099	0.000038	0.000161	0.000053	0.000000	0.001296	0.000124
<i>CmMADS09</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS10</i> ( $M\alpha$ )	0.000321	0.000000	0.000000	0.000000	0.000000	0.000000	0.000207	0.000000	0.000000	0.000000
<i>CmMADS11</i> ( $M\alpha$ )	0.041063	0.005694	0.006588	0.004923	0.016675	0.011750	0.006168	0.001585	0.007675	0.029625
<i>CmMADS12</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS13</i> ( $M\alpha$ )	0.001506	0.001294	0.002183	0.000058	0.002193	0.000153	0.000151	0.000197	0.000678	0.003019
<i>CmMADS14</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS15</i> ( $M\alpha$ )	0.001431	0.000425	0.000088	0.000018	0.000091	0.000056	0.000062	0.000062	0.000102	0.000106
<i>CmMADS16</i> ( $M\beta$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS17</i> ( $M\beta$ )	0.000249	0.000126	0.000026	0.000030	0.000051	0.000254	0.000319	0.000209	0.000152	0.000498
<i>CmMADS18</i> ( $M\beta$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS19</i> ( $M\gamma$ )	0.000396	0.000093	0.000098	0.000060	0.000278	0.000179	0.000130	0.002436	0.000150	0.000331
<i>CmMADS20</i> ( $M\gamma$ )	0.000081	0.000000	0.000033	0.000000	0.000000	0.000000	0.000066	0.000280	0.000417	0.001488
<i>CmMADS21</i> ( $M\gamma$ )	0.000516	0.000057	0.000056	0.000042	0.000034	0.003519	0.000394	0.000209	0.000351	0.001556
<i>CmMADS22</i> (SEP)	1.000000	0.266875	0.269563	0.114563	0.261938	0.400000	0.267750	0.228563	0.010100	0.000046
<i>CmMADS23</i> (SEP)	3.975000	0.560000	0.495000	9.406250	2.256250	3.425000	5.065000	6.762500	0.000154	0.000750
<i>CmMADS24</i> (SEP)	1.362500	0.166250	0.129750	0.930000	1.243125	1.156250	1.957500	1.070625	0.002611	0.000406
<i>CmMADS25</i> (SEP)	1.750000	0.484375	0.558875	5.758125	2.658125	2.556250	4.057500	2.646250	0.000830	0.000401
<i>CmMADS26</i> (AGL6)	0.000000	0.953125	0.956875	0.020913	0.681875	0.041775	0.076438	0.002979	0.000149	0.000000
<i>CmMADS27</i> (AGL6)	0.286875	0.046500	0.021875	0.052394	0.168250	0.230625	0.458125	0.222813	0.000704	0.000280
<i>CmMADS28</i> (AG)	0.336875	0.103750	0.087688	2.556250	0.531125	0.549375	1.056250	1.353750	0.001169	0.003531
<i>CmMADS29</i> (AG)	0.146250	0.027438	0.024444	0.238813	0.373875	0.109375	0.266813	0.447188	0.001499	0.000186
<i>CmMADS30</i> (AG)	0.006169	0.005050	0.003271	0.000143	0.034094	0.000430	0.000714	0.000704	0.000163	0.000000
<i>CmMADS31</i> (AG)	0.005225	0.007250	0.004663	0.000592	0.035913	0.000339	0.000481	0.001049	0.000066	0.000336
<i>CmMADS32</i> (AG)	0.005400	0.003769	0.003774	0.000235	0.044106	0.000248	0.000776	0.000252	0.000151	0.000000
<i>CmMADS33</i> (AP1)	7.375000	3.325000	3.750625	0.483688	5.195000	2.750000	1.888125	0.829375	0.001945	0.001100
<i>CmMADS34</i> (AP1)	4.050000	1.587500	1.149375	0.159375	0.486500	1.587500	1.050000	0.298125	0.219250	0.014625
<i>CmMADS35</i> (SOC1)	0.351250	0.186250	0.162000	0.095125	0.105125	0.220000	0.196000	0.242125	0.434438	0.000245
<i>CmMADS36</i> (SOC1)	0.106250	0.029438	0.016350	0.059013	0.033663	0.005938	0.008906	0.133688	0.401625	0.006019
<i>CmMADS37</i> (AGL12)	0.008375	0.000598	0.000791	0.000640	0.001028	0.005238	0.008969	0.004422	0.000620	0.000000
<i>CmMADS38</i> (TM8)	1.781250	0.793750	0.710625	0.000106	0.728125	0.256250	0.033275	0.000530	0.000923	0.000000
<i>CmMADS39</i> (AGL15)	0.040500	0.007125	0.004541	0.022256	0.039475	0.078125	0.109125	0.514250	0.000089	0.001294
<i>CmMADS40</i> (AGL15)	0.002638	0.000611	0.000717	0.000645	0.003458	0.015063	0.017750	0.116938	0.003749	0.002794
<i>CmMADS41</i> (AGL17)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS42</i> (MIKC <sup>*</sup> )	0.000000	0.000068	0.000000	0.000054	0.000020	0.000000	0.000590	0.160313	0.000000	0.000000
<i>CmMADS43</i> (MIKC <sup>*</sup> )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS44</i> (MIKC <sup>*</sup> )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS45</i> (MIKC <sup>*</sup> )	0.027625	0.006688	0.004256	0.003801	0.011794	0.014875	0.017025	1.329375	0.006913	0.087500
<i>CmMADS46</i> (MIKC <sup>*</sup> )	0.037188	0.016313	0.015169	0.009894	0.021300	0.079375	0.109250	19.431250	0.006104	0.003206
<i>CmMADS47</i> (AP3)	0.476250	0.002494	0.001248	0.009394	0.007888	0.055313	0.043856	0.489313	0.000000	0.000000
<i>CmMADS48</i> (AP3)	1.018750	0.019000	0.017875	0.214750	0.010663	1.931250	2.695625	11.412500	0.000946	0.000229
<i>CmMADS49</i> (AP3)	0.560625	0.045375	0.036244	0.461313	0.174375	1.212500	2.556250	5.633125	0.001258	0.000806
<i>CmMADS50</i> (FLC)	0.017438	0.003850	0.003105	0.016500	0.001719	0.006375	0.018825	0.040775	0.001789	0.750000
<i>CmMADS51</i> (SVP)	0.066875	0.022750	0.008369	0.013450	0.003845	0.023250	0.028438	0.009881	0.171188	0.000591
<i>CmMADS52</i> (SVP)	0.014375	0.009125	0.003073	0.002948	0.001091	0.053063	0.212250	0.006819	1.336875	0.000361
<i>CmMADS53</i> (SVP)	0.439375	0.249375	0.217688	0.007800	0.047056	0.067500	0.042656	0.094563	0.185188	0.000000

**Supplementary Table 2s.** The mean relative expression value of the Chinese chestnut MADS-box genes in different organs (continued)

Standard error of mean relative expression value	Mixed floral bud	Early female flower	Late female flower	Stigma	Ovary	Staminate catkin	Male floral cluster	Stamen	Leaf	Cotyledon
<i>CmMADS01</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000075	0.000044	0.000000	0.000000	0.000000
<i>CmMADS02</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000002	0.000077	0.000000	0.000001	0.000086
<i>CmMADS03</i> ( $M\alpha$ )	0.000050	0.000298	0.000047	0.000168	0.000102	0.000192	0.000774	0.000378	0.000037	0.000119
<i>CmMADS04</i> ( $M\alpha$ )	0.000148	0.000161	0.000034	0.000056	0.000235	0.000036	0.000176	0.000273	0.000416	0.001338
<i>CmMADS05</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS06</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS07</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS08</i> ( $M\alpha$ )	0.000031	0.000064	0.000150	0.000008	0.000022	0.000006	0.000003	#DIV/0!	0.000203	0.000133
<i>CmMADS09</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS10</i> ( $M\alpha$ )	0.000170	0.000000	0.000000	0.000000	0.000000	0.000000	0.000016	0.000000	0.000000	0.000000
<i>CmMADS11</i> ( $M\alpha$ )	0.002169	0.000462	0.000923	0.000604	0.001917	0.000450	0.000646	0.000492	0.000694	0.011063
<i>CmMADS12</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS13</i> ( $M\alpha$ )	0.000015	0.000121	0.000245	0.000013	0.000188	0.000101	0.000034	0.000079	0.000076	0.000457
<i>CmMADS14</i> ( $M\alpha$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS15</i> ( $M\alpha$ )	0.000043	0.000062	0.000011	0.000001	0.000055	0.000075	0.000013	0.000022	0.000015	0.000125
<i>CmMADS16</i> ( $M\beta$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS17</i> ( $M\beta$ )	0.000097	0.000007	0.000006	0.000002	0.000009	0.000084	0.000239	0.000085	0.000013	0.000241
<i>CmMADS18</i> ( $M\beta$ )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS19</i> ( $M\gamma$ )	0.000266	0.000027	0.000032	0.000005	0.000035	0.000027	0.000023	0.000523	0.000025	0.000047
<i>CmMADS20</i> ( $M\gamma$ )	0.000067	0.000000	0.000011	0.000000	0.000000	0.000000	0.000004	0.000065	0.000050	0.000405
<i>CmMADS21</i> ( $M\gamma$ )	0.000478	0.000003	0.000001	0.000043	0.000003	0.000431	0.000032	0.000013	0.000059	0.000200
<i>CmMADS22</i> (SEP)	0.095000	0.020688	0.024256	0.007981	0.013381	0.033556	0.032806	0.018631	0.000756	0.000022
<i>CmMADS23</i> (SEP)	0.118125	0.022194	0.042000	0.260813	0.304688	0.107125	0.455500	0.893125	0.000056	0.000015
<i>CmMADS24</i> (SEP)	0.173125	0.008331	0.006488	0.053875	0.027244	0.044244	0.199625	0.058688	0.000154	0.000004
<i>CmMADS25</i> (SEP)	0.129375	0.035788	0.053719	0.438688	0.175125	0.185063	0.429563	0.200063	0.000112	0.000012
<i>CmMADS26</i> (AGL6)	0.000000	0.125063	0.148813	0.003147	0.088813	0.004181	0.009350	0.000564	0.000018	0.000000
<i>CmMADS27</i> (AGL6)	0.035625	0.004639	0.002304	0.006819	0.014263	0.036625	0.067813	0.037025	0.000205	0.000037
<i>CmMADS28</i> (AG)	0.016438	0.007256	0.000961	0.217688	0.049988	0.062625	0.048838	0.123188	0.000158	0.000738
<i>CmMADS29</i> (AG)	0.012063	0.003281	0.002924	0.012819	0.049463	0.013800	0.028169	0.063688	0.000151	0.000004
<i>CmMADS30</i> (AG)	0.000775	0.000614	0.000316	0.000014	0.007050	0.000227	0.000106	0.000210	0.000030	0.000000
<i>CmMADS31</i> (AG)	0.000236	0.000322	0.000599	0.000079	0.003210	0.000088	0.000131	0.000175	0.000057	0.000044
<i>CmMADS32</i> (AG)	0.001344	0.000395	0.000664	0.000075	0.007144	0.000031	0.000040	0.000122	0.000130	0.000000
<i>CmMADS33</i> (AP1)	0.399375	0.329813	0.380625	0.039506	0.316688	0.269313	0.283000	0.046125	0.000229	0.000022
<i>CmMADS34</i> (AP1)	0.183125	0.125188	0.127000	0.014175	0.031213	0.204563	0.139500	0.021375	0.019244	0.000321
<i>CmMADS35</i> (SOC1)	0.020438	0.004156	0.011338	0.008888	0.002104	0.011088	0.016775	0.015475	0.025669	0.000025
<i>CmMADS36</i> (SOC1)	0.008313	0.003591	0.002024	0.019575	0.004104	0.000659	0.000533	0.023669	0.068500	0.002025
<i>CmMADS37</i> (AGL12)	0.001069	0.000018	0.000132	0.000175	0.000122	0.000393	0.000716	0.000457	0.000136	0.000000
<i>CmMADS38</i> (TM8)	0.094375	0.102875	0.091688	0.000026	0.072563	0.030400	0.002093	0.000334	0.000224	0.000000
<i>CmMADS39</i> (AGL15)	0.002025	0.000384	0.000658	0.002696	0.004062	0.002984	0.011244	0.063375	0.000005	0.000375
<i>CmMADS40</i> (AGL15)	0.000368	0.000165	0.000186	0.000142	0.000589	0.001109	0.001497	0.008106	0.000202	0.000988
<i>CmMADS41</i> (AGL17)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS42</i> (MIKC <sup>*</sup> )	0.000000	0.000004	0.000000	0.000006	0.000002	0.000000	0.000052	0.007244	0.000000	0.000000
<i>CmMADS43</i> (MIKC <sup>*</sup> )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS44</i> (MIKC <sup>*</sup> )	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
<i>CmMADS45</i> (MIKC <sup>*</sup> )	0.001906	0.000939	0.000370	0.000415	0.001491	0.004341	0.003298	0.141813	0.000244	0.018688
<i>CmMADS46</i> (MIKC <sup>*</sup> )	0.005231	0.000908	0.001696	0.001847	0.003716	0.008881	0.010625	1.848750	0.000529	0.000067
<i>CmMADS47</i> (AP3)	0.054063	0.000370	0.000276	0.001613	0.001170	0.002791	0.003875	0.028069	0.000000	0.000000
<i>CmMADS48</i> (AP3)	0.073750	0.001456	0.002506	0.028563	0.001479	0.272125	0.463063	1.805000	0.000308	0.000072
<i>CmMADS49</i> (AP3)	0.056688	0.004238	0.003777	0.049644	0.012050	0.093750	0.250563	0.445188	0.000137	0.000024
<i>CmMADS50</i> (FLC)	0.000956	0.000057	0.000102	0.000904	0.000739	0.000443	0.001633	0.000632	0.000137	0.041188
<i>CmMADS51</i> (SVP)	0.014813	0.004281	0.000865	0.001168	0.000449	0.002523	0.006588	0.000726	0.003756	0.000114
<i>CmMADS52</i> (SVP)	0.000881	0.000617	0.000365	0.000058	0.000130	0.002777	0.016713	0.000909	0.109813	0.000128
<i>CmMADS53</i> (SVP)	0.018563	0.022506	0.021906	0.000906	0.004121	0.005508	0.005917	0.014613	0.014100	0.000000