

**Table S2 Segregation through the pollen of the *CUL1* RNAi T-DNA.** Five independent transformants (T<sub>0</sub>-1 to -5) were crossed as pollen donors onto SC and SI accessions of *S. arcanum* (LA2157 and LA2163, respectively). T<sub>1</sub> progeny arrays from three independent LA2163 plants (LA2163-1, -2, -3 or -4) were analyzed. Chi-square goodness-of-fit statistics (df = 1, with Yates correction factor) were used to test for deviations from the expected 1:1 (single T-DNA insertion) or 3:1 (two insertions) ratios.

Cross (♀ × ♂)	No. Plants + : - TDNA	Total	% Transgenic Progeny	Ratio Tested	χ <sup>2</sup>	P value
LA2157 × T <sub>0</sub> -1	71 : 25	96	74.0	3:1	0.01	0.92
LA2163-1 × T <sub>0</sub> -1	6 : 42	48	12.5	3:1	96.7	<0.0001
LA2163-2 × T <sub>0</sub> -1	7 : 41	48	14.3	3:1	90.3	<0.0001
LA2163-3 × T <sub>0</sub> -1	2 : 46	48	4.2	3:1	124.8	<0.0001
LA2157 × T <sub>0</sub> -2	42 : 54	96	43.8	1:1	1.26	0.26
LA2163-1 × T <sub>0</sub> -2	17 : 79	96	17.7	1:1	38.8	<0.0001
LA2163-2 × T <sub>0</sub> -2	12 : 84	96	12.5	1:1	52.5	<0.0001
LA2163-3 × T <sub>0</sub> -2	0 : 96	96	0	1:1	94.0	<0.0001
LA2157 × T <sub>0</sub> -3	64 : 80	144	44.4	1:1	1.56	0.2117
LA2163-1 × T <sub>0</sub> -3	2 : 46	48	4.2	1:1	38.5	<0.0001
LA2163-2 × T <sub>0</sub> -3	4 : 44	48	8.3	1:1	31.7	<0.0001
LA2163-3 × T <sub>0</sub> -3	0 : 48	48	0	1:1	46.0	<0.0001
LA2157 × T <sub>0</sub> -4	50 : 46	96	52.1	1:1	0.1	0.7518
LA2163-1 × T <sub>0</sub> -4	6 : 42	48	12.5	1:1	25.5	<0.0001
LA2163-2 × T <sub>0</sub> -4	2 : 46	48	4.2	1:1	38.5	<0.0001
LA2163-3 × T <sub>0</sub> -4	0 : 48	48	0	1:1	46.0	<0.0001
LA2157 × T <sub>0</sub> -5	62 : 82	144	43.1	1:1	2.5	0.1138
LA2163-2 × T <sub>0</sub> -5	5 : 43	48	10.4	1:1	28.5	<0.0001
LA2163-3 × T <sub>0</sub> -5	0 : 48	48	0	1:1	46.0	<0.0001
LA2163-4 × T <sub>0</sub> -5	2 : 46	48	4.2	1:1	38.5	<0.0001