

Table S4 Estimated epistatic interaction (EI) effects of markers for plant height (PH) across six environments.

No ^a	Environment ^b	Chr1 ^c	Marker interval 1	Physical position (bp)	Chr2	Marker interval 2	Physical position (bp)	LOD ^d	PVE (%) ^e	Add1 ^f	Add2 ^g
EI-PH-b_1	CP10	6	mk1170-mk1171	25245531-26781419	20	mk4523-mk4524	37109513-37323541	4.17	7.2	-0.84	-0.62
EI-PH-b_2	SYi10	6	mk1264-mk1265	49742092-49855056	7	mk1413-mk1418	19202699-20881413	4.01	16.01	0.09	1.1
EI-PH-b_3	SYi10	13	mk2806-mk2807	38327801-38573344	18	Gm18-106.5-Gm18-167.5	10635434-16846302	4.49	17.65	1.03	0.46
EI-PH-b_4	SYa10	3	mk621-mk623	38441897-38685750	8	mk1528-mk1529	4350000-4450000	4.31	7.58	0.17	0.19
EI-PH-b_5	SYa10	11	mk2285-mk2286	26675161-26788241	14	mk2914-mk2915	6872461-7042178	4.28	6.47	0.08	-0.14
EI-PH-b_6	SYa09	9	mk1869-mk1870	40550000-41938559	19	mk4171-mk4172	710362-930189	4.08	6.08	0.49	-0.29
EI-PH-b_7	SYa09	11	mk2267-mk2286	24271238-26788241	19	mk4167-mk4168	348188-501328	4.1	5.92	0.47	-0.19
EI-PH-b_8	CP11	7	mk1357-mk1358	9788740-9937258	10	mk2095-mk2096	44744286-45016157	5.5	8.44	0.34	-0.6
EI-PH-b_9	CP11	5	mk964-mk985	33950452-36350000	13	mk2782-mk2783	35382135-35524331	5.23	14.91	1.21	1.15

^aNine epistatic interaction (EI) effects identified for plant height

^bSYa09, environment in Sanya in 2009; SYa10, environment in Sanya in 2010; CP10, environment in Changping in 2010; CP11, environment in Changping in 2011

^cChromosome

^dThe logarithm of odds score for epistatic QTL

^ePhenotypic variance explained by epistatic QTL effect

^fAdditive effect of the first QTL

^gAdditive effect of the second QTL

^hAdditive × additive effect of QTL