

Supplementary Table 6: Genetic effects from generation-means analysis and mode-of-inheritance classification for individual ILs.

Interval	Cross	d_i^a	a_i^a	$d_i/ a_i ^a$	GMA ^b	Classification ^c
1/82-90	C24xCol	0.315 ± 0.061 ^{***}	0.005 ± 0.034 ^{ns}	63.0	OD	ODO
1/82	C24xCol	0.307 ± 0.061 ^{***}	0.027 ± 0.034 ^{ns}	11.4	OD	ODO
1/82-88	C24xCol	0.269 ± 0.062 ^{**}	-0.021 ± 0.034 ^{ns}	12.8	OD	ODO
1/94-97	C24xCol	0.186 ± 0.062 ^{ns}	-0.006 ± 0.034 ^{ns}	31.0	OD	ODO
3/46-53	C24xCol	0.267 ± 0.062 ^{**}	0.028 ± 0.034 ^{ns}	9.5	OD	ODO
3/68-83	C24xCol	0.200 ± 0.061 ^{ns}	-0.016 ± 0.034 ^{ns}	12.5	OD	ODO
3/74-79	C24xCol	0.211 ± 0.062 [*]	0.040 ± 0.034 ^{ns}	5.3	OD	ODO
4/0	C24xCol	0.228 ± 0.061 [*]	0.011 ± 0.034 ^{ns}	20.7	OD	ODO
4/0-14	C24xCol	0.221 ± 0.062 [*]	0.033 ± 0.034 ^{ns}	6.7	OD	ODO
4/64-78	C24xCol	0.341 ± 0.061 ^{***}	-0.057 ± 0.034 ^{ns}	6.0	OD	ODO
5/71-82	C24xCol	0.280 ± 0.062 ^{***}	-0.137 ± 0.034 ^{**}	2.0	OD	No QTL
5/14-30	C24xCol	0.248 ± 0.061 ^{**}	-0.034 ± 0.034 ^{ns}	7.3	OD	ODO
5/30-44	C24xCol	0.368 ± 0.061 ^{***}	-0.126 ± 0.034 [*]	2.9	OD	ODO
5/86-93	C24xCol	0.193 ± 0.061 ^{ns}	-0.106 ± 0.034 ^{ns}	1.8	OD	recessive
1/0-17	ColxC24	0.199 ± 0.062 ^{ns}	-0.043 ± 0.034 ^{ns}	4.6	OD	ODO
1/61-97	ColxC24	0.198 ± 0.062 ^{ns}	0.098 ± 0.034 ^{ns}	2.0	OD	recessive
1/93-101	ColxC24	0.221 ± 0.062 [*]	-0.047 ± 0.034 ^{ns}	4.7	OD	ODO
2/30-43	ColxC24	0.297 ± 0.062 ^{***}	0.034 ± 0.034 ^{ns}	8.7	OD	ODO
2/61-74	ColxC24	0.307 ± 0.062 ^{***}	0.022 ± 0.034 ^{ns}	14.0	OD	ODO
2/74	ColxC24	0.251 ± 0.062 ^{**}	0.057 ± 0.034 ^{ns}	4.4	OD	ODO
3/20-58	ColxC24	0.241 ± 0.062 ^{**}	0.026 ± 0.034 ^{ns}	9.3	OD	ODO
3/49-86	ColxC24	0.289 ± 0.062 ^{***}	0.201 ± 0.034 ^{***}	1.4	OD	recessive
3/49-57	ColxC24	0.270 ± 0.062 ^{**}	0.149 ± 0.034 ^{**}	1.8	OD	recessive
4/60-65	ColxC24	0.039 ± 0.062 ^{ns}	0.096 ± 0.034 ^{ns}	0.4	PD	ODO
4/60-70	ColxC24	0.016 ± 0.063 ^{ns}	0.102 ± 0.034 ^{ns}	0.2	PD	ODO
4/60-62	ColxC24	0.174 ± 0.062 ^{ns}	0.097 ± 0.034 ^{ns}	1.8	OD	recessive
5/93-end	ColxC24	0.065 ± 0.062 ^{ns}	0.179 ± 0.034 ^{***}	0.4	PD	ODO

Introgression is indicated as chromosome position (chromosome/cM).

^a d_i denotes dominance effect; a_i indicates additive effect and $d_i/|a_i|$ is the dominance ratio.

^b Gene effect derived from generation means analysis. QTL were classified as additive (A; $d_i/|a_i| < 0.2$), partially dominant (PD; $0.2 \leq d_i/|a_i| < 0.8$), dominant (D; $0.8 \leq d_i/|a_i| < 1.2$), and overdominant (OD; $d_i/|a_i| \geq 1.2$) according to Stuber et al. (1987).

^c Gene effect based on mode-of-inheritance classification. The mode-of-inheritance of a QTL was determined according to the decision tree given by Semel et al. (2006, Figure 4). If the IL

was significantly different from recurrent parent P_i and the IL-TC phenotype was between IL and P_i , we distinguished three cases: (i) if IL-TC was significantly different from IL but not from P_i , the introgressed QTL allele was considered recessive; (ii) if IL-TC differed from both parents or did not differ from either of them, the QTL effect was considered additive; and (iii) if IL-TC differed from P_i but not from IL, the introgressed QTL allele was classified as dominant. If IL-TC differed significantly from IL and P_i , the QTL was classified as overdominant (ODO).

*** ** * significant at $P < 0.001$, $P < 0.01$, $P < 0.05$, respectively

^{ns} not significant