

Table S4 The results of mouse behavioral data analysis by using VBfun which assumed the AR(1) residual covariance structure, including the selected markers, their chromosomes, locations, and the corresponding Wald scores. Regarding to the Wald tests, the critical value corresponding to the significance level 0:05 is 67.50 for the estimates (chi-square distribution with 50 degrees of freedom).

Marker	Chromosome	Location (cM)	Wald Score
6 (gnf01_085_746)	1	43.48	292.83
18 (rs3689947)	1	96.11	795.93
23 (rs13476507)	2	30.83	173.80
37 (rs13477019)	3	9.16	277.01
50 (rs3657112)	3	75.42	206.72
64 (rs3688968)	4	54.61	353.39
74 (rs3726547)	5	50.68	278.76
81 (rs13478621)	6	4.38	441.15
91 (rs6387265)	6	77.70	426.03
108 (rs6216320)	7	69.01	280.63
118 (gnf08_109_993)	8	53.04	360.41
123 (rs6207781)	9	20.74	1242.01
137 (rs13480657)	10	39.72	379.31
145 (rs3023251)	11	13.71	241.39
156 (rs13481230)	11	75.02	256.88
165 (rs13481509)	12	26.44	194.32
202 (rs6326790)	15	45.98	346.22
205 (rs4180773)	16	29.53	175.19
217 (rs4231494)	17	19.56	183.36
224 (rs6358426)	18	10.10	375.13