

Table S3. Details of the genes under each QTL with significant merge SNPs nearby.

SNPs with good SDP	in/near gene (location of gene)
<b>Asprl 1: Chr 8</b>	
47,951,844 ( $\log P = 5.63$ )	near <b>Irf2</b> (47,825,115-47,932,801)
run ( $\log P = 5.78$ ) between 48,281,756 and 48,287,513	in Stox2 (48,271,310 – 48,437,702)
run ( $\log P = 5.96$ ) between 48,872,956 and 48,896,293	near Cldn22 (48,909,836-48,910,829) and Wwc2 (48,911,437-49,075,897)
<b>Asprl 2: Chr 10 B</b>	
Nothing	
<b>Asprl 3: Chr 15</b>	
Runs of SNPs follow the peak	
highest $\log P$ run ( $\log P = 6.18$ ) between 34,107,007 and 34,425,409	over multiple genes: <b>Laptm4b</b> (34,167,781-34,214,050) Matn2 (34,236,436-34,365,997) 9430069I07Rik (34,278,808-34,287,627) Rp130 (34,370,260-34,373,395) BC030476 (34,383,067-34,403,646) <b>Hrsp12</b> (34,413,776-34,424,935) Pop1 (34,425,087-34,460,402)
<b>Asprl 4: Chr 10 A</b>	
13,565,620 ( $\log P = 5.68$ )	in Aig1 (13,366,863-13,588,786)
run ( $\log P = 6.82, 7.16$ ) between 14,753,652 and 14,944,601	near Nmbr (14,480,027-14,490,389)
run ( $\log P = 6.97$ ) between 15,548,942 and 15,714,476	not really near anything
22,235,197 ( $\log P = 6.78$ ) and 22,241,040 ( $\log P = 6.78$ )	near Raet1d (22,081,700-22,093,943) and Slc2a12 (22,364,937-22,424,091)
22,532,385 ( $\log P = 6.92$ )	near ENSMUSG00000075292

	(22,535,555-22,543,136) and Tcf21 (22,537,085-22,539,980)
22,537,465 (logP = 6.92)	in ENSMUSG00000075292 and Tcf21
22,969,475 (logP = 6.53) and 22,973,889 (logP = 6.53) and 23,009,306 (logP = 6.53)	in Eya4 (22,823,974-23,069,701)
23,156,428 (logP = 6.29)	near Eya4
<b>Asprl 5: Chr 18</b>	
11,064,012 (logP = 5.34)	in Gata6 (11,052,508-11,085,633)
11,391,085 (logP = 5.30)	not really near anything
11,755,222 (logP = 5.19) and 11,914,962 (logP = 5.19)	near Rbbp8 (11,815,936-11,901,716)
<b>Asprl 6: Chr 3</b>	
Run (logP = 5.03) between 116,544,990 and 116,605,934	over Frrs1 (116,581,145116,606,668)
116,459,656 (logP = 5.03) and 116,460,296 (logP = 5.03) and 116,494,696 (logP = 4.84)	in Agl (116,442,917-116,511,084)
<b>Asprl 7: Chr2</b>	
Runs of SNPs follow the peak	
Highest logP run (logP = 4.50) between 9,961,897 and 10,263,166	over multiple genes: Itih5 (10,075,170-10,178,153) Itih2 (10,016,218-10,052,290) Kin (10,002,236-10,014,327) Atp5c1 (9,977,643-10,002,137) Taf3 (9,836,181-9,970,243)