

**Supplemental table 1** QTLs for liver weight in (A/J × SM.A-*T2dm2sa*)F2 mice after 11 weeks feeding of a high-fat diet.

Phenotype	Nearest Marker	Position (Mb)	LOD <sup>a</sup>	QTL	% <sup>b</sup>	Phenotype based on genotype <sup>c</sup>		
						SM/SM	SM/A	A/A
<b>Liver</b> (g/100g bw)	D11Mit242	63.2	<b>8.7**</b>	<i>Livq3sa</i>	15	<b>4.63 ± 0.71 (69)</b>	4.24 ± 0.59 (129)	3.92 ± 0.53 (57)
	D13Mit53	113.1	2.1		4	4.24 ± 0.71 (57)	4.18 ± 0.62 (128)	<b>4.48 ± 0.66 (70)</b>
	D15Mit52	22.4	<b>6.3**</b>	<i>Livq4sa</i>	6	4.09 ± 0.56 (72)	4.17 ± 0.61 (112)	<b>4.62 ± 0.71 (71)</b>
	D17Mit68	47.7	3.5		6	4.01 ± 0.61 (68)	4.40 ± 0.69 (120)	<b>4.31 ± 0.60 (67)</b>

\*\* Highly significant level; the other LOD scores without asterisks denote suggestive level linkage.

<sup>a</sup> The maximum LOD scores, exceeding suggestive threshold level. Suggestive, significant, or highly significant thresholds derived from free model permutation for each trait were as follows: for liver weight (2.1, 3.6, 5.1).

<sup>b</sup> Percentage of phenotypic variance explained by the QTL.

<sup>c</sup> Phenotype based on genotype at the nearest marker. Data are expressed means ± SD for genotypes. The number of mice of each genotype is indicated in parentheses. The higher mean of SM/SM or A/A were written by bold-faced letter.