

Supplementary table 1. Genetic markers used for linkage analysis in this study.

GGA	Marker	Position sex average map (cM)
1	<i>MCW0248</i>	0
1	<i>ADL0160</i>	11.7
1	<i>LEI0194</i>	59.1
1	<i>MCW0111</i>	85.5
1	<i>MCW0297</i>	113.5
1	<i>MCW0101</i>	166.3
1	<i>CBLB</i>	196.4
1	<i>ADL0268</i>	206
1	<i>ZFP92</i>	218.2
1	<i>LEI0169</i>	272
1	<i>LEI0107</i>	299.8
1	<i>MCW0145</i>	330.4
1	<i>MCW0020</i>	333
1	<i>MCW0115</i>	388.7
1	<i>LEI0134</i>	398.7
1	<i>THRSP</i>	405.9
1	<i>MCW0107</i>	451.8
2	<i>MCW0206</i>	0
2	<i>MCW0063</i>	18.6
2	<i>MCW0039</i>	64.2
2	<i>LEI0096</i>	89.6
2	<i>MCW0034</i>	89.8
2	<i>ADL0181</i>	94.2
2	<i>MCW0087</i>	103.1
2	<i>MCW0009</i>	103.9
2	<i>MCW0288</i>	118.3
2	<i>MCW0264</i>	160.9
2	<i>FABP4</i>	180.2
2	<i>MCW0282</i>	210.9
2	<i>LEI0141</i>	215.6
2	<i>MCW0320</i>	228.6
2	<i>ADL0146</i>	236.9
2	<i>MCW0157</i>	330
3	<i>MCW0261</i>	0
3	<i>LEI0043</i>	5.3
3	<i>UGP2</i>	53.2
3	<i>MCW0083</i>	64.2
3	<i>CSRP2BP</i>	70.7
3	<i>DEGS1</i>	78.2
3	<i>MCW0222</i>	94
3	<i>MCW0127</i>	143.1

3	<i>MCW0103</i>	165
3	<i>SLC35A1</i>	182.1
3	<i>MCW0224</i>	187.2
3	<i>ME1</i>	193.1
3	<i>MCW0016</i>	214.7
3	<i>GCT0053</i>	226.5
3	<i>ODC</i>	244.4
3	<i>LEI0166</i>	268.1
3	<i>MCW0037</i>	286.8
4	<i>ADL0255</i>	0
4	<i>ADL0317</i>	10.2
4	<i>ADL0203</i>	29.6
4	<i>IRS4</i>	53.1
4	<i>MCW0295</i>	66.3
4	<i>LEI0094</i>	134.4
4	<i>ELOVL6</i>	159.8
4	<i>MCW0098</i>	199.8
4	<i>KIAA0232</i>	210.1
4	<i>TRMT44</i>	214.1
4	<i>LEI0085</i>	221.4
4	<i>LEI0073</i>	228.7
5	<i>MCW0263</i>	0
5	<i>MCW0193</i>	28.6
5	<i>EFCAB4B</i>	33.7
5	<i>ROS0013</i>	55.7
5	<i>INO80</i>	57.5
5	<i>ADL0292</i>	59.1
5	<i>MCW0214</i>	64.2
5	<i>GPHN</i>	70.8
5	<i>MCW0078</i>	74.1
5	<i>GEMIN2</i>	89.6
5	<i>POMT2</i>	102.3
5	<i>TSHR</i>	106.9
5	<i>MCW0029</i>	109.2
5	<i>PSMC1</i>	115
5	<i>MCW0081</i>	126.1
5	<i>ADL0166</i>	141.2
5	<i>ADL0298</i>	179.3
6	<i>MCW0014</i>	0
6	<i>MCW0250</i>	11.9
6	<i>ADL0230</i>	14.2
6	<i>SCD1</i>	29
6	<i>ADL0159</i>	41.1

6	MCW0176	136.1
7	LEI0064	0
7	MCW0183	51.6
7	ROS0019	64.6
7	ADL0315	87.1
7	MCW0316	99.3
7	ADL0169	115.2
8	MCW0275	0
8	MCW0095	29.4
8	MCW0160	38.4
8	ADL0278	103.4
8	MCW0351	109
9	ROS0078	0
9	GCT0016	37.9
9	ADL0191	45.5
9	DTYMK	50.1
9	ADL0021	56.6
9	ADL0259	104.2
10	MCW0228	0
10	MCW0194	30.9
10	MCW0067	33.3
10	ADL0158	68.7
10	ADL0112	86.4
11	MCW0097	0
11	ADL0123	8.7
11	MCW0230	108.7
11	MC1R	128.5
12	ADL0372	0
12	LOC100859653	3.5
12	ADL0240	11.3
12	MCW0198	58.9
12	MCW0332	68.2
13	LEI0251	0
13	MCW0216	4.8
13	ROS0083	7.7
13	MCW0104	28.9
14	ADL0200	0
14	LEI0098	20.9
14	MCW0123	30.6
15	ADL0206	0
15	LEI0120	7.3
15	MCW0080	42.7
17	MCW0151	0

17	<i>MCW0330</i>	29.2
17	<i>ADL0293</i>	48.9
18	<i>ADL0304</i>	0
18	FASN	29.2
18	<i>MCW0219</i>	48.9
19	<i>MCW0266</i>	0
19	<i>MCW0256</i>	18.3
19	HSPB1	36.1
19	MYO1C	56.7
19	<i>MCW0287</i>	73
20	<i>LEI0080</i>	0
20	<i>ADL0324</i>	14.4
20	<i>ADL0034</i>	21.5
21	<i>SLC2A1</i>	0
21	PRDM16	89.3
22	<i>ROS0073</i>	0
22	<i>GCT0042</i>	24.2
23	FABP3	0
23	<i>ADL0262</i>	14
23	<i>MCW0165</i>	16.5
23	<i>ADL0289</i>	26
24	C2CD2L	0
24	SIK2	2.2
24	PKNOX2	9.5
24	FLI1	21.8
24	NTM	29.1
24	CLMP	47.1
24	<i>MCW0301</i>	64.5
24	mir6612	92.9
24	<i>LEI0069</i>	115.5
24	BCDO2	129.3
24	ALG9	139.9
26	<i>MCW0069</i>	0
26	<i>MCW0285</i>	0.8
26	<i>LEI0074</i>	37.8
27	<i>MCW0300</i>	0
27	<i>MCW0328</i>	38.5
27	<i>GCT0022</i>	54.6
28	<i>LEI0135</i>	0
28	<i>GCT0009</i>	39
Z	<i>ADL0273</i>	0
Z	<i>ADL0201</i>	15.1
Z	<i>LEI0121</i>	73.5

Distances are Kosambi cM. SNPs are indicated in bold letters.