

**Table 1.** Measurement of the correlation between the homozygous SNP density in several out-cross and back-cross experiments and a theoretical normal distribution. Analysis of variance and distribution shape.

Sample	SNPs	Chr	r2	SD (Mb)	Kurtosis	Skewness
OCF2	151	2	0.949	6.01	1.85	-0.392
BCF2	15	3	0.959	3.20	2.02	0.201
bak1-5 mob1	25	5	0.944	7.20	2.69	-0.240
bak1-5 mob2	41	5	0.894	3.71	2.37	0.445
sup#1	4633	4	0.976	3.66	3.50	0.370

**Table 2.** Hypothetical candidate mutations obtained by SDM in out-cross and back-cross experiments and real mutation positions. (For simplicity, the 151 candidate positions predicted for sup#1 were not itemised here).

Sample	Cross	Chr	Mutated gene	Candidates	Positions
OCF2	Out-cross	2	SOC1 (~18.8 Mb)	28	9773, 22178, 23681, 33496 55086, 112447, 11857798 11905532, 11905533, 11910437, 11958727, 17312141, 17360989, 17363726, 17418367, 17421593 17435968, 18774111, 18779106, <b>18808927, 18816626</b> , 18908972, 18946473, 19181359, 19237195 19308373 19309911, 19352435
BCF2	Back-cross	3	HASTY (~14.05 Mb)	4	<b>1405085</b> , 4919240, 6035523 10163762
bak1-5 mob1	Back-cross	5	CPK28 (~26.45 Mb)	9	11186761, 11202828, 11211636, 11218614, 18036595, 18155812 <b>26457834, 26458077, 26474069</b>
bak1-5 mob2	Back-cross	5	CPK28 (~26.45 Mb)	10	18143387, 18218877, 18251689, 18261108, 22049050, 22066915, <b>26560691, 26626055, 26710709,</b> <b>26716839</b>
sup#1	Out-cross	4	SGT1b (~6.85 Mb)	151	7910430..8076837