



File S3 *saturn* is caused by two mutations that are mapped to 69C-70C (*saturn^{dist}*) and 72B-80B (*saturn^{prox}*). Summary of SNPs genotyping. (A) 206 putative recombinants were genotyped for the SNPs at 61A and at 75F. Non-recombinant lines (group 3) are excluded from the subsequent assays. 6/80 recombinant lines have a hypomorphic phenotype, suggesting that the presence of two closely-linked mutations near to 75F. (B) Initial second-stage genotyping reveals that *saturn^{dist}* lies in 69C-72B and *saturn^{prox}* mutation is between 72B and the 80B (FRT), and further genotyping places *saturn^{dist}* mutation between 69C and 70C. WGS shows that *saturn^{prox}* and *saturn^{dist}* represent mutations in *klc* and *mael*, respectively (see results).