SUPPORTING FIGURE LEGENDS

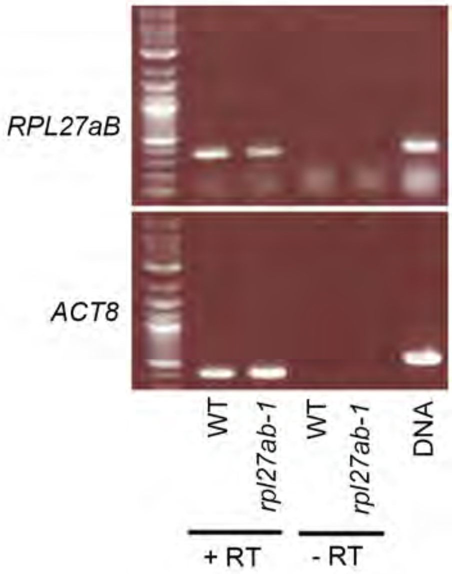
Figure S1. *rpl27ab-1* has reduced transcript levels. Transcript level of *RPL27aB* in wild type and *rpl27ab-1.* Transcript level of *ACT8* was used as an mRNA control.

Figure S2. Expression of *RPL27a* genes in developing ovules. A and B, *pRPL27aB:nls-vYFP* in pre-meiosis ovules. C and D, *pRPL27aC:nls-vYFP* in pre-meiosis ovules. mmc, megaspore mother cell.

Figure S3. Mutations in *rps23b, rpl35a* and *rpl39c.* A-D, Ribosomal protein mutant rosette leaf phenotypes in *as1* mutant background. *as1* single mutant (A), *as1 rps23b* (B), *as1 rpl39c* (C), *as1 rpl35a* (D). Inserts show single rosette leaf with adaxial ectopic outgrowth (arrowhead). E-G, Ribosomal protein mutant rosette leaf phenotypes in wild-type background. Wild type (E), *rps23b* (F), *rpl39c* (G). H, *as1 rpl35a* complemented with *RPL35A:RPL35A.* I, Diagrammatic representation of *RPS23B, RPL35A* and *RPL39C* genes showing sites of point mutations. J, Transcript level of *RPL35A* in wild type and *rpl35a-1.* Transcript level of *ACT8* was used as an mRNA control. K, Transcript level of *RPL39C* in wild type and *rpl39c-1.* Transcript level of *ACT8* was used as an mRNA control.

Figure S4. Relative transcript levels of wild type and *RPL27aC:rpl27ac-1d.* A, Agarose gel of RPL27aC amplified from genomic DNA (top) and cDNA (bottom) from wild type, *rpl27ac-1d/+* and three independent transformants of wild type carrying the transgene *RPL27aC:rpl27ac-1d.* The location of the restriction fragment polymorphism for wild type and mutant is indicated. B, Wild-type and *rpl27ac-1d* allele frequency in clones of PCR amplified cDNA from *rpl27ac-1d/+* and two independent transformants of wild type carrying the transgene *RPL27aC:rpl27ac-1d.*

Figure S5. *rpl27ac-2* and *rpl27ac-2/+*ovule phenotypes in Columbia background. A and B, Wild-type ovules. The percentage of normal ovules is indicated for ovules at the pre-meiosis stage (n=268) (A) and at the FG6 stage (n=260) (B). C and D, Abnormal *rpl27ac-2* ovules. The percentage of abnormal ovules is indicated. Pre-meiosis stage ovule with several enlarged cells (arrowheads) (n=240) (C). Post-meiosis ovule with short integuments and functional gametophyte (FG, outlined) protruding from the ovule (n=415) (D). E and F, Abnormal ovules from *rpl27ac-2/+* showing pre-meiosis stage ovule with several enlarged cells (arrowheads) (E) and FG6 stage ovule with normal integuments surrounding a gametophyte with a single nucleus (arrow) (F). central cell nucleus (ccn), egg cell nucleus (ecn). Scale bars = 10 μm.



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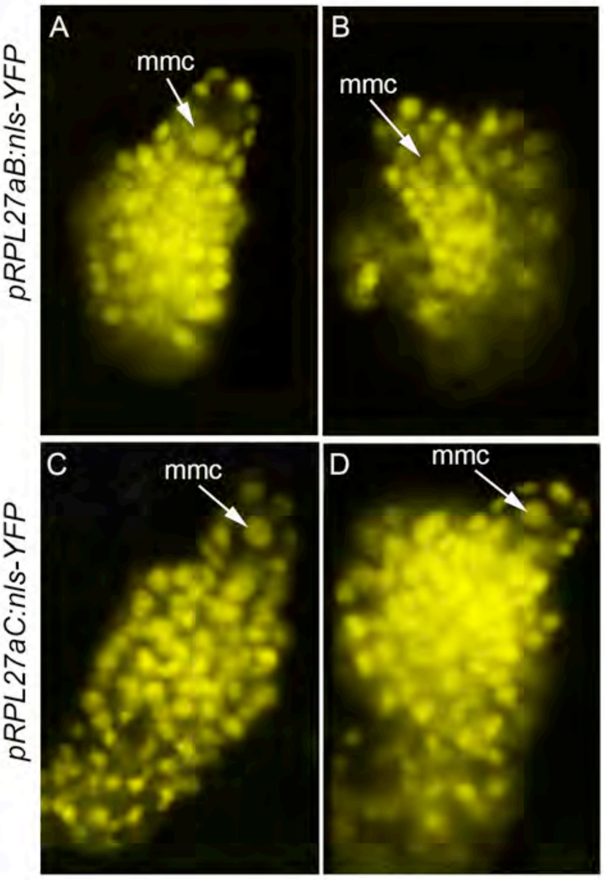

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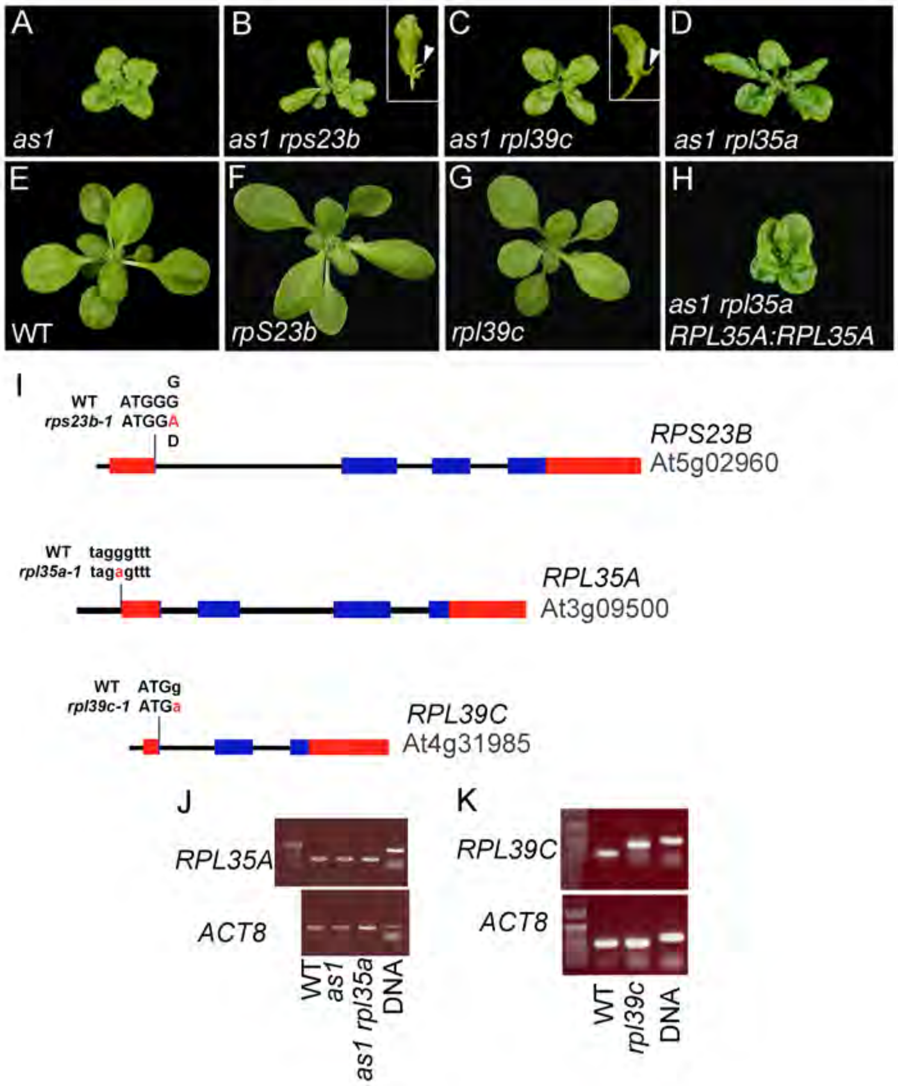

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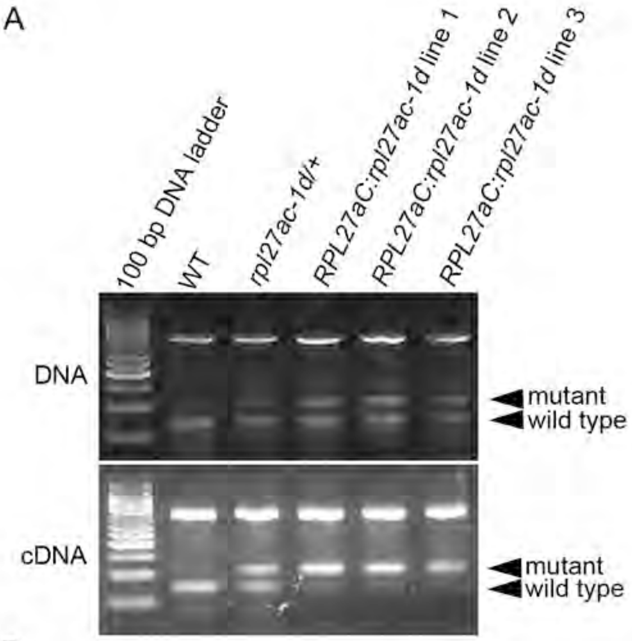

B

	Wild type allele	Mutant allele
rpl27ac-1d/+	25	10
RPL27aC:rpl27ac-1d line 2	12	26
RPL27aC:rpl27ac-1d line 3	5	30

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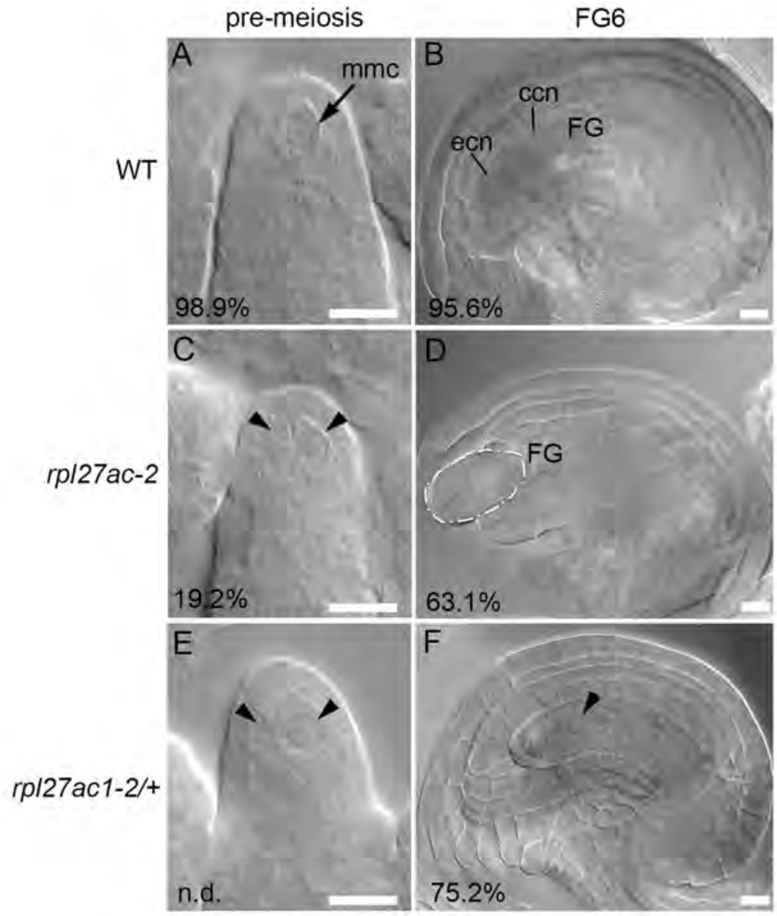

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