## **Supporting Information**

## Murata et al. 10.1073/pnas.0802828105

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Fig. S1. Map of the binary vector pBGF101 used for in planta transformation. The GUS gene in pBI101 (1) has been replaced with the GFP (S65T) gene (2).

1. Jefferson RA, Kavanagh TA, Bevan MW (1987) GUS fusions: β-glucuronidase as a sensitive and versatile gene fusion marker in higher plants. Embo J 6:3901–3907.

2. Niwa Y, Hirano T, Yoshimoto K, Shimizu M, Kobayashi H (1999) Non-invasive quantitative detection and applications of non-toxic, S65T-type green fluorescent protein in living plants. Plant J 18:455–463.

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**Fig. 52.** HTR12-immunostaining and FISH analysis. (A) A pachytene cell of a Tr  $\delta$  plant carrying mini  $\delta$  following fluorescent immunolabeling using anti-HTR12 antibodies (pink) and FISH using 180-bp repeats (yellow). The arrows indicate mini  $\delta$ . (*B*) A pachytene cell of a plant carrying chromosome  $\beta$  following fluorescent immunolabeling using anti-HTR12 antibodies (pink) and FISH using 180-bp repeats (green) to the pachytene chromosomes. The arrow indicates the small 180-bp sites on chromosome  $\beta$ . (Scale bars: 5  $\mu$ m.)



Fig. S3. Lagging of mini  $\delta$  in a mitotic anaphase cell.

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Fig. S4. Presumed chromosomal configuration and segregation at metaphase I to anaphase I and nondisjunction (ND) at the second division (II).

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