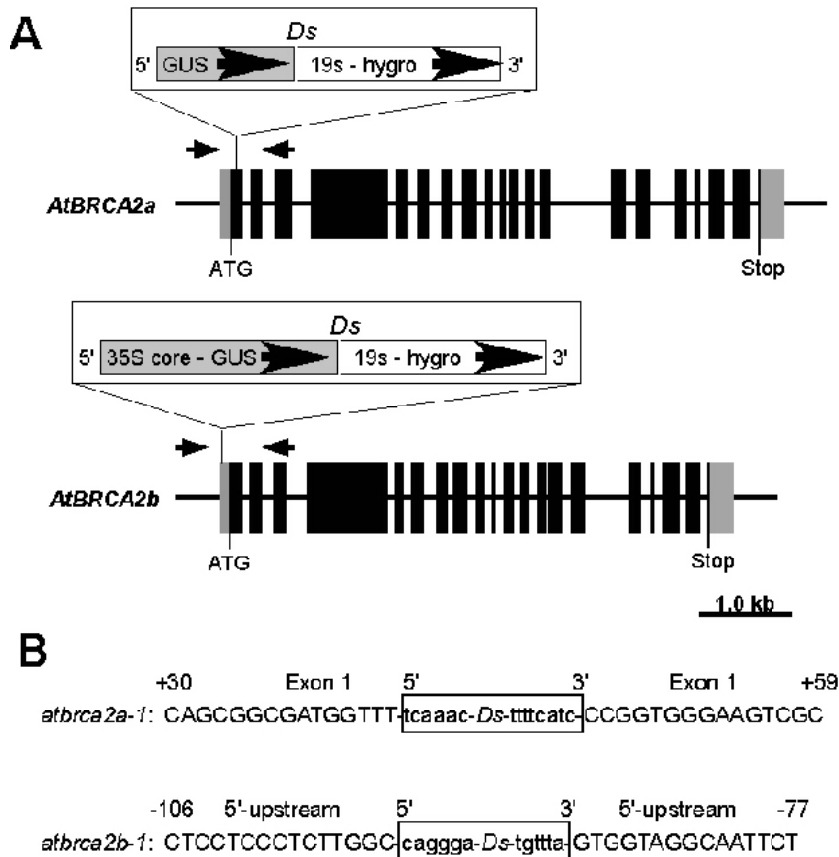


Table S1. Pollen grain viability in *atbrca2* mutants

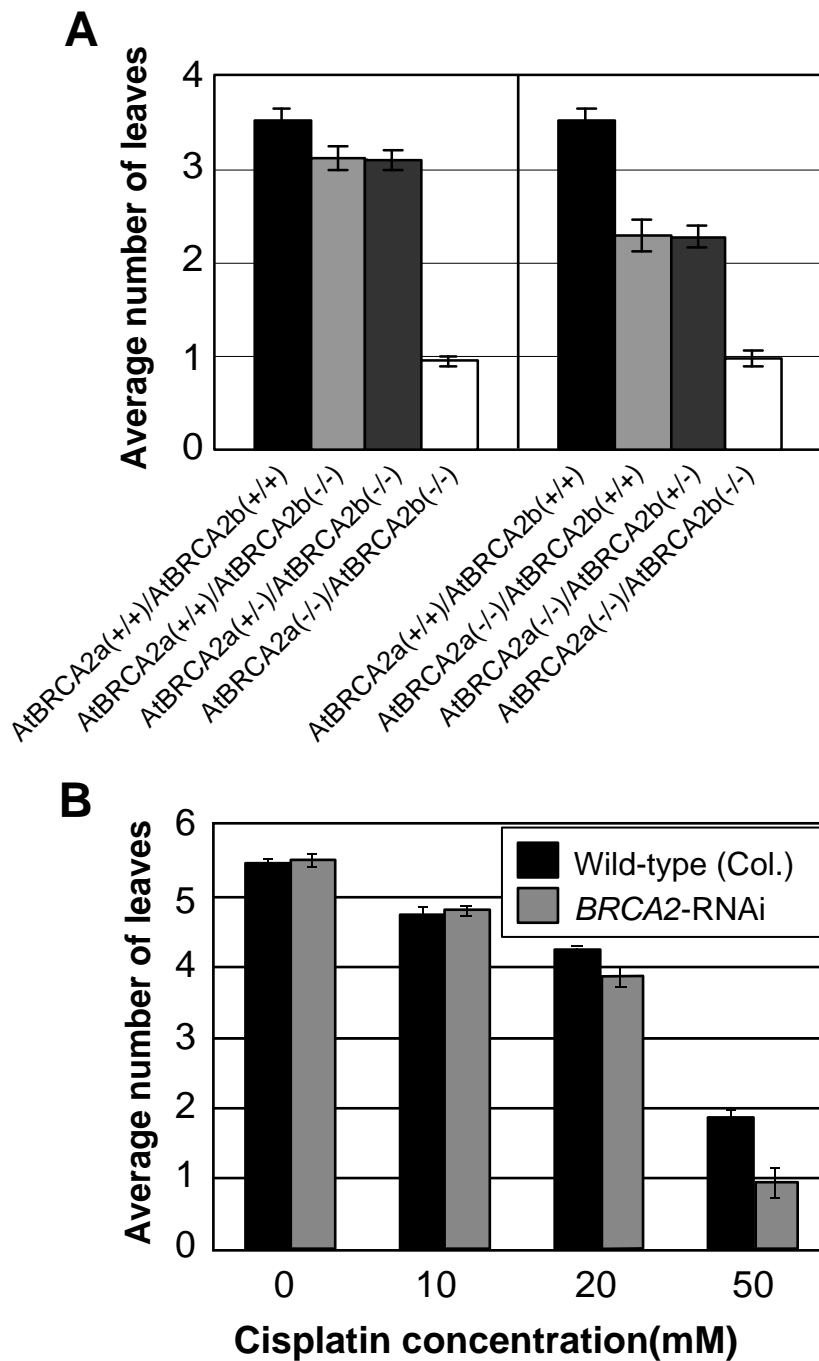
Genotype	Total number of anthers tested	Normal anthers (%)	Abnormal anthers (%)*
<b>Experiment 1</b>			
Wild-type (Nossen)	28	27 (96.4)	1 (3.6)
<i>atbrca2a-1</i>	36	36 (100)	0 (0)
<i>atbrca2b-1</i>	23	23 (100)	0 (0)
<i>atbrca2a-1/ atbrca2b-1</i>	33	27 (81.8)	6 (18.2)
<b>Experiment 2</b>			
Wild-type (Nossen)	44	44 (100)	0 (0)
<i>atbrca2a-1</i>	28	27 (100)	1 (3.6)
<i>atbrca2b-1</i>	34	34 (96.6)	0 (0)
<i>atbrca2a-1/ atbrca2b-1</i>	54	42 (60.0)	12 (22.2)

\*Anthers in which more than 20% of pollen grains in a single anther stained green.

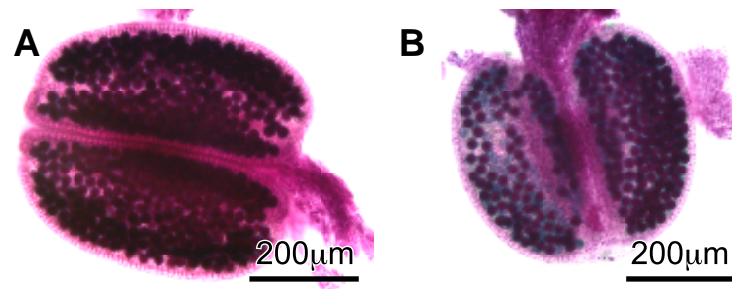
Fig. S1 (Abe *et al.*)



**Fig. S1.** (A, B) *Ds*-transposon insertion sites of *atbrca2* mutants. (A) Structures of *AtBRCA2a* and *AtBRCA2b* genes, showing the *Ds* insertion sites in the *atbrca2a* and *atbrca2b* loci. The structure of the *Ds* transposon used is described in Fedoroff and Smith (1993). Black boxes depict exons and grey boxes depict 5' and 3' untranslated regions (UTRs). Small arrows indicate PCR primers for genotyping. The site of insertion and orientation (large arrowheads) of the *Ds* transposon are indicated for each gene. Translational start sites (ATG) and stop codons are indicated. (B) Sequences surrounding the *atbrca2a-1* and *atbrca2b-1* *Ds* insertion sites. *Ds* inserts are boxed.

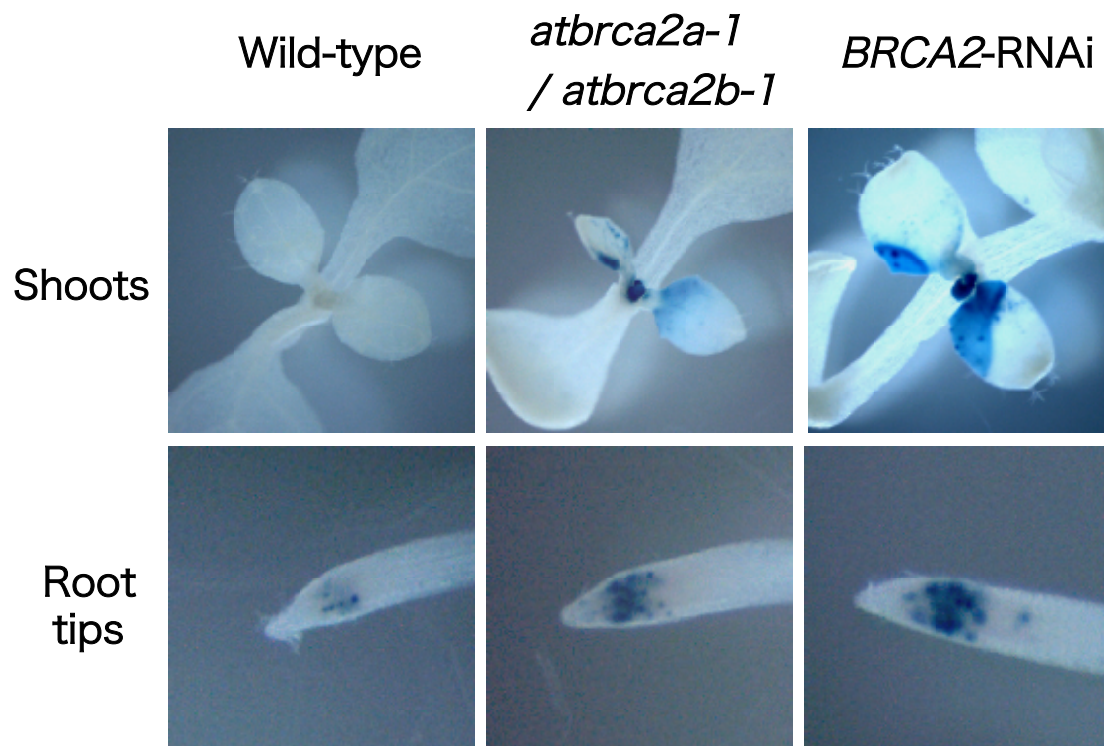


**Fig. S2.** Sensitivity to cisplatin of heterozygous *AtBRCA2a* and *AtBRCA2b* plants and *AtBRCA2*-RNAi plants. (A) Sensitivity to cisplatin of heterozygous plants of both *AtBRCA2a* and *AtBRCA2b* genes. Left and right panels show the results from independent experiments. Imbibed seeds were plated on MS agar medium containing 10mM cisplatin. The numbers of true leaves in wild type (Nossen) and mutant plants were counted 14 days after plating. Data represent the mean  $\pm$  SE of 50 plants in each group from three experiments. (B) Sensitivity to cisplatin of transgenic plants transformed with a *BRCA2*-RNAi construct. Imbibed seeds were plated on MS agar medium containing 0 - 50mM cisplatin. The numbers of true leaves in wild type and mutant plants were counted 14 days after plating. Data represent the mean  $\pm$  SE of 30 plants in each group from three experiments.



**Fig. S3.** Anthers of wild-type (Nossen) (A) and *atbrca2a-1/atbrca2b-1* double mutant (B) stained with Alexander's solution (Alexander, 1969).

**Fig. S4** (Abe *et al.*)



**Fig. S4.** Histochemical assay of the *AtCYCB1;1::GUS* reporter gene (Colon-Carmona *et al.*, 1999) in 7-day-old wild-type, *atbrca2a-1/atbrca2b-1* mutant and *AtBRCA2*-RNAi seedlings.