



Supplementary information, Figure S1 (A) Schematic diagram of the sgRNA and hSpCas9 expression cassettes in a single binary vector designed for *Agrobacterium*-mediated stable transformation of *Arabidopsis* and rice.

The expression cassette of hSpCas9 was driven by the 35S promoter, whereas the sgRNA was driven by the AtU6-26 promoter for *Arabidopsis* and OsU6-2 for rice. **(B)** The list of locus IDs of target genes in *Arabidopsis* and rice. **(C)** Schematic of the Cas9/sgRNA-targeting sites for *BRI1*, *GAI*, *JAZ1*, *ROC5*, *SPP* and *YSA*. **(D)** Representative T1 transgenic plants of the *GAI* sgRNA1 target. The left one is a T1 plant with relatively normal vegetative growth, while the right one is a plant with similar growth phenotype as *gai* dwarf mutants. They were screened on MS plates for 5 days and transplanted in soil for 4 weeks before photographing. The bar equals to 1 cm.