



Figure S1. Details of the binary plasmids used in the study and expression data of *FokI* in the leaves of donor material. (A) and (B) Binary plasmids used to obtain expression of the *gfp*-specific TALEN units. SpecR: *ADENYLTRANSFERASE* (encodes resistance to spectinomycin), LB: T-DNA left border, d35SP: CaMV 35S promoter, BAR: *BAR* (encodes resistance to bialaphos), 35ST: CaMV 35S transcriptional termination sequence, NOST: *A. tumefaciens NOPALINE SYNTHASE* transcriptional termination sequence, FokI: FokI cleavage domain, TALEN (left or right): customized binding domain of the *gfp*-TALEN units, HA: haemagglutinin tag, S40 NLS: SV40 nuclear localization signal, UBIP: maize *UBIQUITIN-1* promoter plus first intron, RB: T-DNA right border, ColE1: *E. coli* plasmid ColE1 high-copy replication origin, pVS1: *Pseudomonas aeruginosa* plasmid pVS1 replication origin. (C) Binary plasmid used for developing stable *gfp* lines and (D) binary plasmid carrying *yfp* gene cassette. (E) Transcription analysis in the presence of the *gfp*-TALEN units. The cDNAs were prepared from lines 335R and 338R (harboring the right-hand unit), and from lines 319L and 462L (left-hand unit). The FokI cleavage domain was amplified using primers given in Online Resource 4 and *HvACTIN1* was used as the reference sequence.