

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: All section images for Fig. 4b and all leaf images for Fig. 5b.

Source 1: All section images for Fig. 4b, WT

Source 2: All section images for Fig. 4b, WT(decapitated)

Source 3: All section images for Fig. 4b, *anac071*

Source 4: All section images for Fig. 4b, *anac096*

Source 5: All section images for Fig. 4b, *anac071 096*

Source 6: All section images for Fig. 4b, *anac071 096 011*

Source 7-8: All leaf images for Fig. 5b, WT

Source 9-10: All leaf images for Fig. 5b, *anac071*

Source 11-12: All leaf images for Fig. 5b, *anac096*

Source 13-14: All leaf images for Fig. 5b, *anac011*

Source 15-16: All leaf images for Fig. 5b, *anac071 096*

Source 17-18: All leaf images for Fig. 5b, *anac071 096 011*

File Name: Supplementary Data 2

Description: The source data used to generate graphs in main figures.

Source 1: Fig.2b-d;Gene expression of ANAC071, ANAC096 and ANAC011 in flowering stems at 1–7 days after incision

Source 2: Fig.2e-d;Gene expression levels of ANAC071, ANAC096, and ANAC011 in flowering stems at 3 DAI.

Source 3: Fig.4b-c;Number of cell layer in secondary xylem and the ratio of cells with secondary cell wall.

Source 4: Fig.5b;The percentage of ectopic xylem area in WT and *anac* mutants.

Source 5: Fig.6a-c;Gene expression of ANAC under VISUAL assay.

Source 6: Fig.6e-f;Gene expression of TDR/PXY and XCP1 under VISUAL assay.

File name: Supplementary Movie 1

Description: Time-lapse movie of incised flowering stem.

Movie of incised flowering stem for 7 days at a time-lapse of 30 minutes was captured using a camera (LUMIX, Panasonic) and edited using the free software AviUtl..