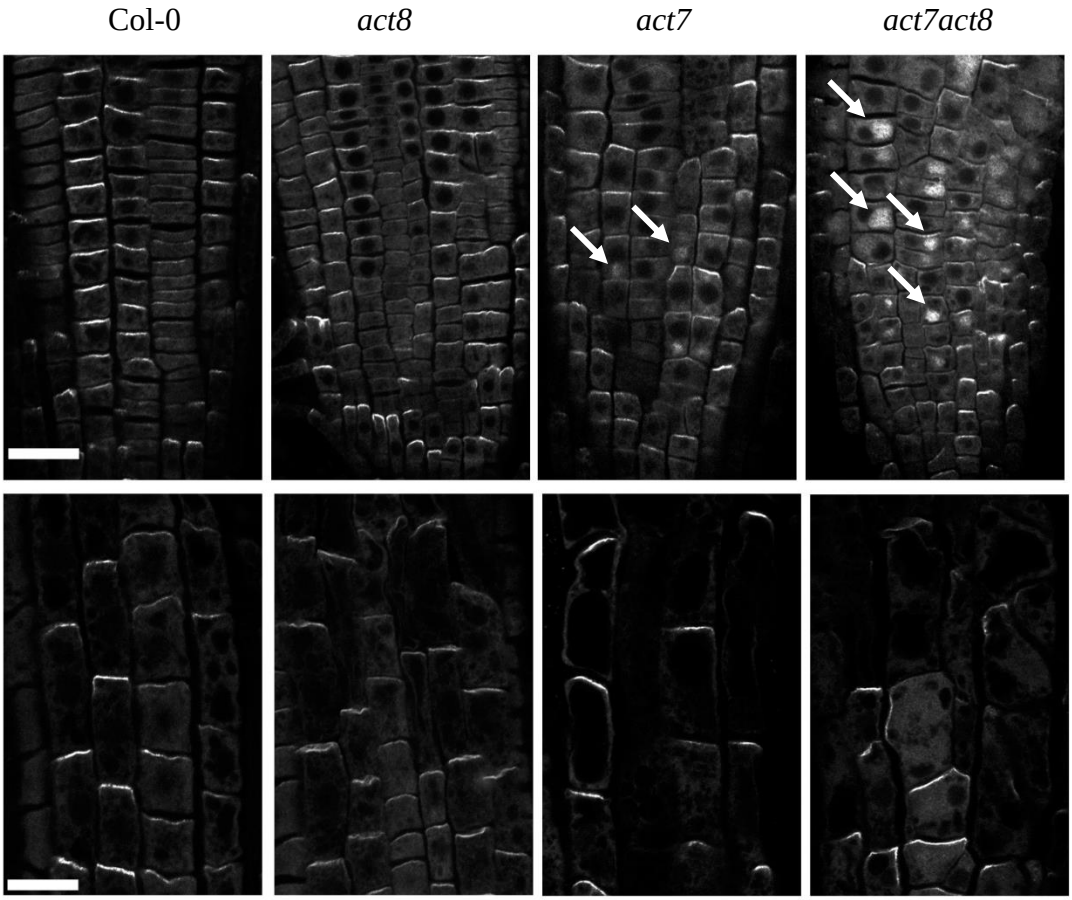
Supplemental Information

Supplemental Table 1: Primers used for gene expression analysis in this study.

PIN1-F	ATCTTCACATGTTTGTGTGG
PIN1-R	TCGTCTTTGTTACCGAAACT
PIN2-F	AGATGCCAACGATAATGAGT
PIN2-R	AGTAATCACCTGAACGATGG
PIN3-F	AGATCTGACCAAGGTGCTAA
PIN3-R	CCTAGACCTGTCTTGGATTG
PIN4-F	ACTTCAACCCAAAATCATTG
PIN4-R	GTGGGATGCACATTGTACT
PIN7-F	AGTTGATAATGGAGCCAATG
PIN7-R	TTATGAGTTTCCTCCACACC
AUX1-F	CAGATCAGGTAAACGGAAAC
AUX1-R	TCCAGCTTCCTAGTAAACCA
ARR1-F	GTCAAGACACAACACGACAG
ARR1-R	TGTATCCGTAGCCACTCTCT
ARR12-F	CAGCTTCAGACAAACAACAA
ARR12-R	GTTGCGTAGAGAAGCTAGGA
SHY2-F	GGGTCAAGGAATCTATGTGA
SHY2-R	CCCACAGAGAATTTGAACAT
ETR2-F	AGAGAAACTCGGGTGCGATGT
ETR2-R	TCACTGTCGTCGCCACAATC
CTR1-F	GCTGCATTACCACAAAAGAGG
CTR1-R	AGTAAAGCTCGATGTCTGCA
EBF2-F	TGATGTTGGTCTTGGTGCTGTTGC
EBF2-R	ATTCCAGGACACCGTGAAAGGTCA
EIN2-F	GGAGGGTATGGTGCGTCTTA
EIN2-R	TGTGGCAAACTGTAGGCATC



Supplemental Figure 1: Localization of PIN2 in actin mutants. Five-day-old seedlings were fixed and processed for immunofluorescence with an anti-PIN1 antibody. The upper panel represents the meristem zone and the lower panel represents transition zone, respectively. Five-day-old seedlings were fixed and processed for immunofluorescence with an anti-PIN1 antibody. The images are single stack and representative of three biological replicates. Imaging was performed with same confocal settings. Arrowheads indicate the intracellular agglomeration of PIN2. Bar=50 μm

Method for PIN immunostaining:

PIN localization was performed using the method described earlier (Rahman et al., 2007). Five-day-old seedlings were used for immunostaining. The primary antibody was anti-PIN2 (1:100 dilution) generated in our lab. The secondary antibody was Cy-3 goat anti-rabbit IgG (1:200, Jackson Immunoresearch, **http://www.jacksonimmuno.com/**). All imaging was done on a confocal laser microscope, (Nikon laser scanning microscope, Eclipse Ti equipped with Nikon C2 Si laser scanning unit, www.nikon.co.jp) and imaged with 60× oil-immersion objective. The images were taken using the same confocal settings for each set of experiments. All the experiments were repeated at least 3 times.

Reference:

Rahman A, Bannigan A, Sulaman W, Pechter P, Blancaflor EB, Baskin TI (2007) Auxin, actin and growth of the Arabidopsis thaliana primary root. Plant J **50**: 514–528