



**Supplementary information, Figure S3** Expression patterns of several marker genes critical for root development and phenotypes of several mutants.

(A-C) Expression patterns of *pSHR::NLS-YFP*, *pSCR::NLS-YFP*, and *pWOX5::NLS-YFP* in Col-0 and

*rig1,2,3,4,5*. Size bar represents 50  $\mu$ m. Five-day-old seedlings were used for photographing.

(D) Phenotypes of Col-0, *rig1,2,3,4,5*, *wox5*, and *rig1,2,3,4,5 wox5*. Size bar represents 5 mm.