

**Additional File 5.** Phloroglucinol staining of stem transverse sections from T2 pNST3::-CAS9-pU6::HCT\_gRNA14 plants. Transverse sections were made from the base of the main stem of WT and transgenic plants at 39 DPG. V: vessel cells; IF: interfascicular fiber cells. Arrows indicate fiber cells surrounding the vessel cells in the xylem. Scale bar: 50 µm.