



Figure S2. Mannan-deficient *cs/a2cs/a3cs/a9* triple mutants of *Arabidopsis* plants demonstrate increased gravitropic bending of hypocotyls. Three-day-old etiolated Col-0 and *cs/a2cs/a3cs/a9* seedlings grown on vertical Petri plates were gravistimulated by a 90° counterclockwise rotation of the plates. Angles of their hypocotyl curvature were measured 4 h and 6 h after the moment of gravistimulation. Abbreviations: WTG - gravistimulated Col-0 plants; MG - gravistimulated *cs/a2cs/a3cs/a9* triple mutant plants. Data are means \pm SD (n=45). The triple mutation significantly ($P < 0.05$, Student's *t*-test) increased the angle of hypocotyl bending 4 h and 6 h after gravistimulation.