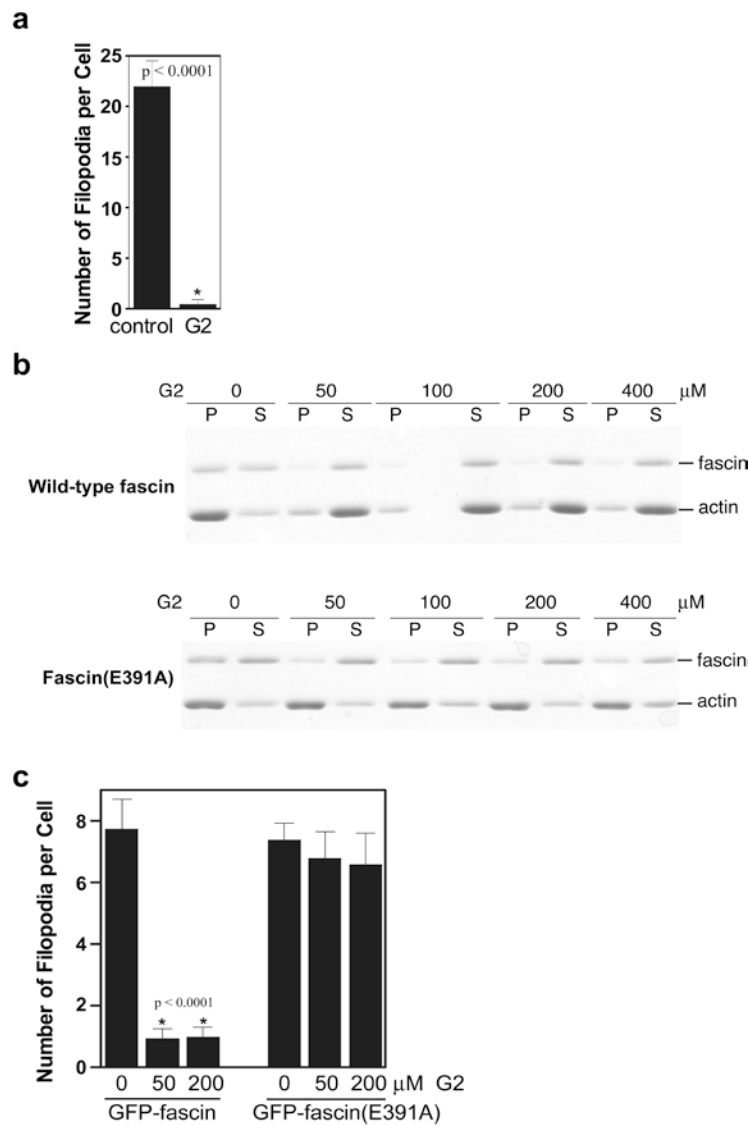
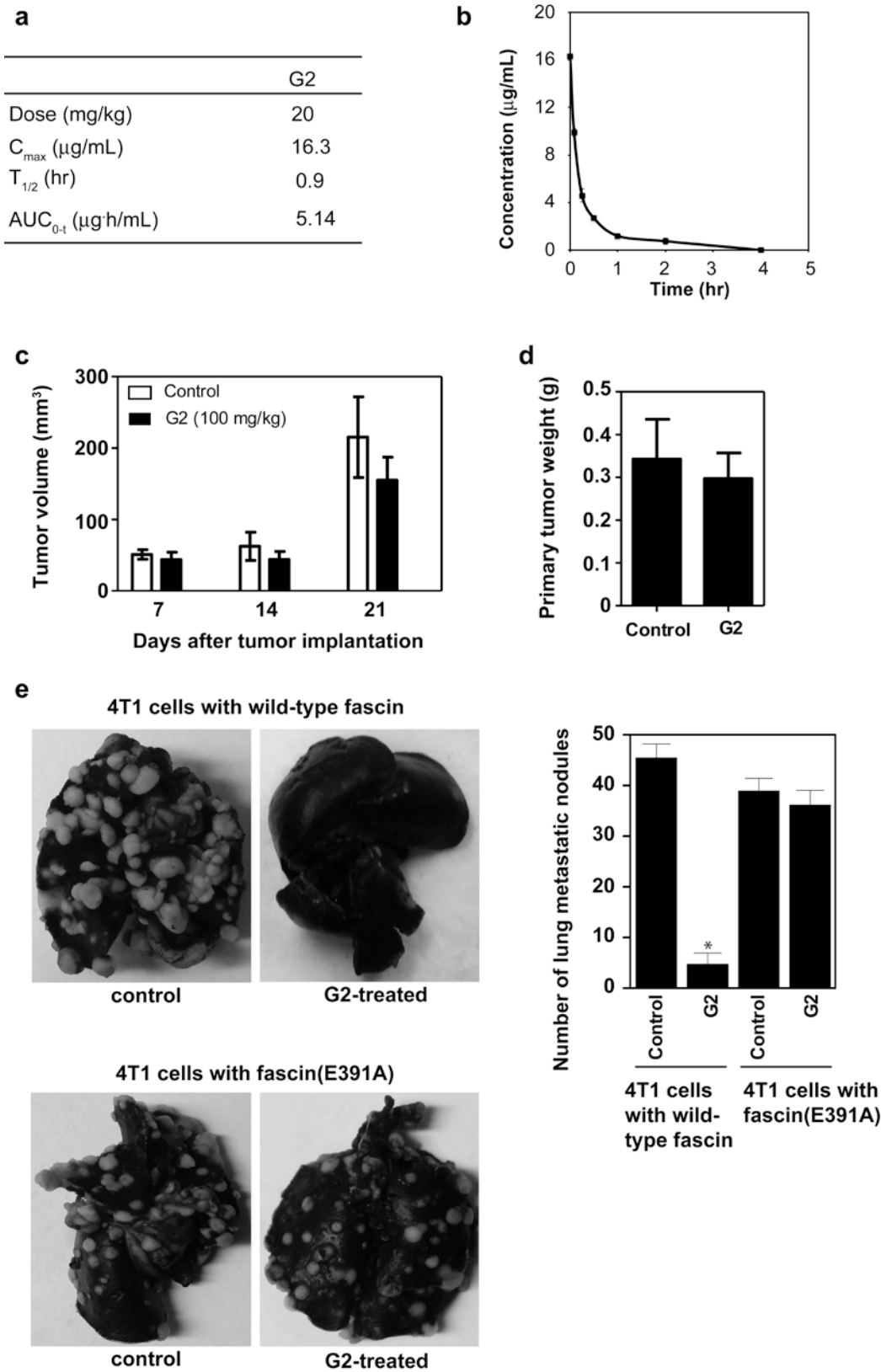


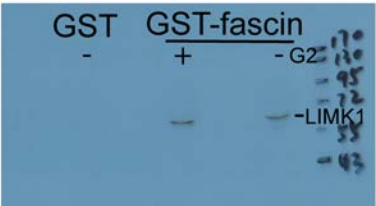
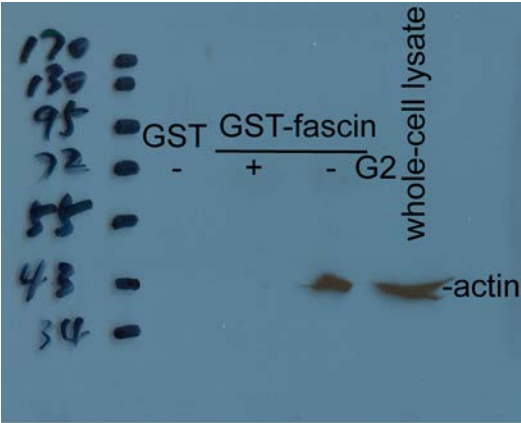
SUPPLEMENTARY FIGURES



Supplementary Fig. 1. a, Inhibition of filopodial formation by G2. Untransfected 4T1 cells, treated with or without G2, were stained with anti-fascin antibody and imaged by fluorescence microscopy. The number of filopodia per cell was counted ($n = 7\sim 11$). **b**, The actin-bundling activity of fascin(E391A) is resistant to G2 inhibition. The effect of G2 on the actin-bundling activity of wild-type fascin and fascin(E391A) was assayed by the low-speed co-sedimentation assay. **c**, Filopodial formation induced by GFP-fascin(E391A) is resistant to G2. The number of GFP marked filopodia was counted in 4T1 cells transfected with GFP-fascin or GFP-fascin(E391A) ($n = 7\sim 16$).



Supplementary Figure 2. a and b, Pharmacokinetic study of G2 in mice. Pharmacokinetic parameters were measured based on plasma levels after administration of a single intravenous dose of 20 mg G2 per kg body weight. AUC, area under the curve; C_{max}, the peak plasma concentration of G2; T_{1/2}, half-life. **c and d**, G2 had no significant effect on the growth of primary 4T1 breast tumors. 4T1 breast tumor cells were implanted in the mouse mammary gland. These mice were treated with control solution (n=9) or G2 (100 mg/kg) (n=9). The tumor volume was measured with Vernier caliper every 7 days (**c**). Mice were killed 21 days after 4T1 cell inoculation and the primary tumors were isolated and weighted (**d**). G2 did not significantly change the volume or weight of the primary tumors ($p > 0.5$). Data are mean $\pm$ SEM. **e**, G2 blocked tumor metastasis of 4T1 cells expressing wild-type fascin, but not 4T1 cells expressing fascin(E391A). Representative images of the lungs from mice treated with control solution or G2 are shown at the left and the number of surface metastatic nodules per lung (n= 5 mice per group) is shown at the right. White tumor nodules could be seen on a darker lung background. Data are reported as mean $\pm$ SEM. *, $p < 0.0001$.



Supplementary Figure 3. Full size images for Figs. 3f and 3g.