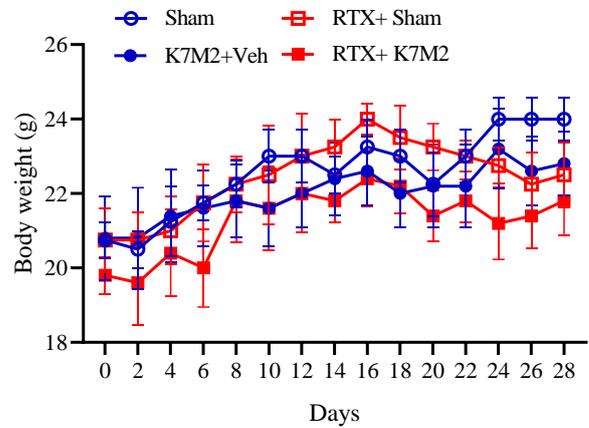
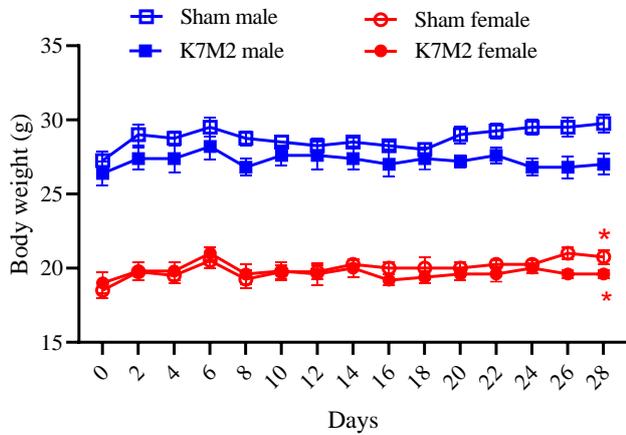
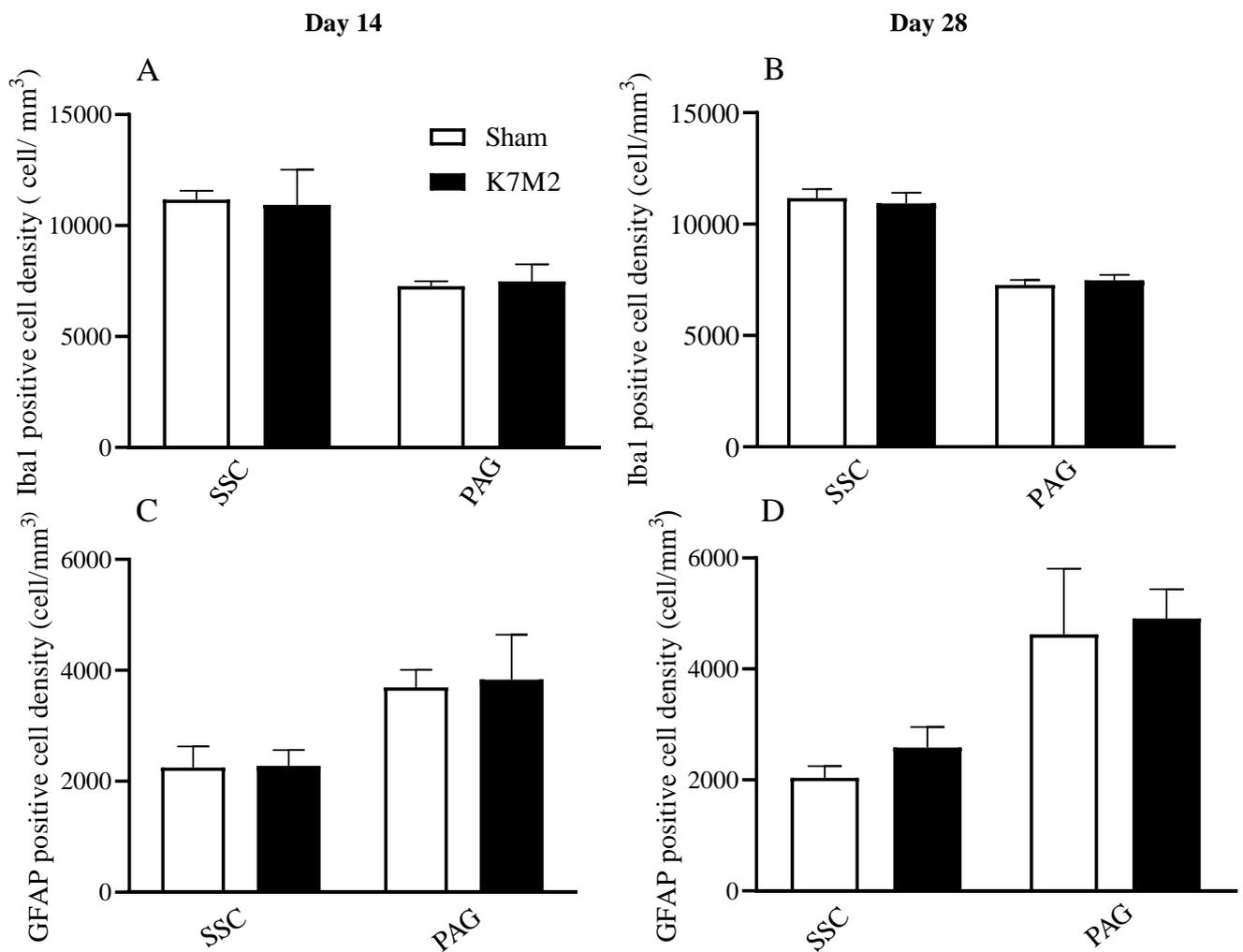


Supplementary Materials:



Supplementary Figure 1. Body weights of the mice between the four groups throughout the experiment. Significant difference can be observed between male and female mice, without tumor-caused effects. \*  $p > 0.0001$  vs respective male (Two-way ANOVA+Tukey's multiple comparison test,  $n=4-5$ /group).



Supplementary Figure 2. Iba1-positive microglia cell density in the ipsilateral (right SSC) and in the PAG 14 days (A) and 28 days (B) after osteosarcoma induction. GFAP-positive astrocyte density in the ipsilateral SSC and in the PAG after 14 days (C) and 28 days (D) after osteosarcoma induction (two-way ANOVA+Tukey's multiple comparison test, n=8-11/group).