

Supplementary Figure 2 **The alternative activation state of macrophages in tumor-bearing mice were determined by immunofluorescence staining.** Sections of 8-week-old orthatopic hepatocarcinoma mouse livers were immunolabeled with anti-mouse CD68 (FITC-conjugated, green) to identify macrophage populations. Anti-mouse CD206 (PE-conjugated, red) were used to label alternatively activated macrophage. DAPI (blue) was used to identify cell nucleus. Superimposed images demonstrate that CD206⁺ macrophages undergoes sex dimorphism in female (**a**) and male (**d**) control. Loss of estrogen induced macrophage (black arrows) infiltration in female mice after ovariectomy (**b**). Administration of 17β-estradiol (50 μg/kg) s.c. every other day attenuated macrophage infiltration (**c**). Male mice after castration did not display significant variance in macrophage infiltration (**e**) while administration of 17β-estradiol (50 μg/kg) s.c. every other day in castrated male mice displayed attenuated macrophage alternative activation state (**f**).(magnification, 200×).