Figure S1. Macroscopic images of the healing trajectory of wounds. Additional representative images of wounds in mice at wounding (0) and 5, 10 or 13 days post wounding. Scale bar is 5mm.
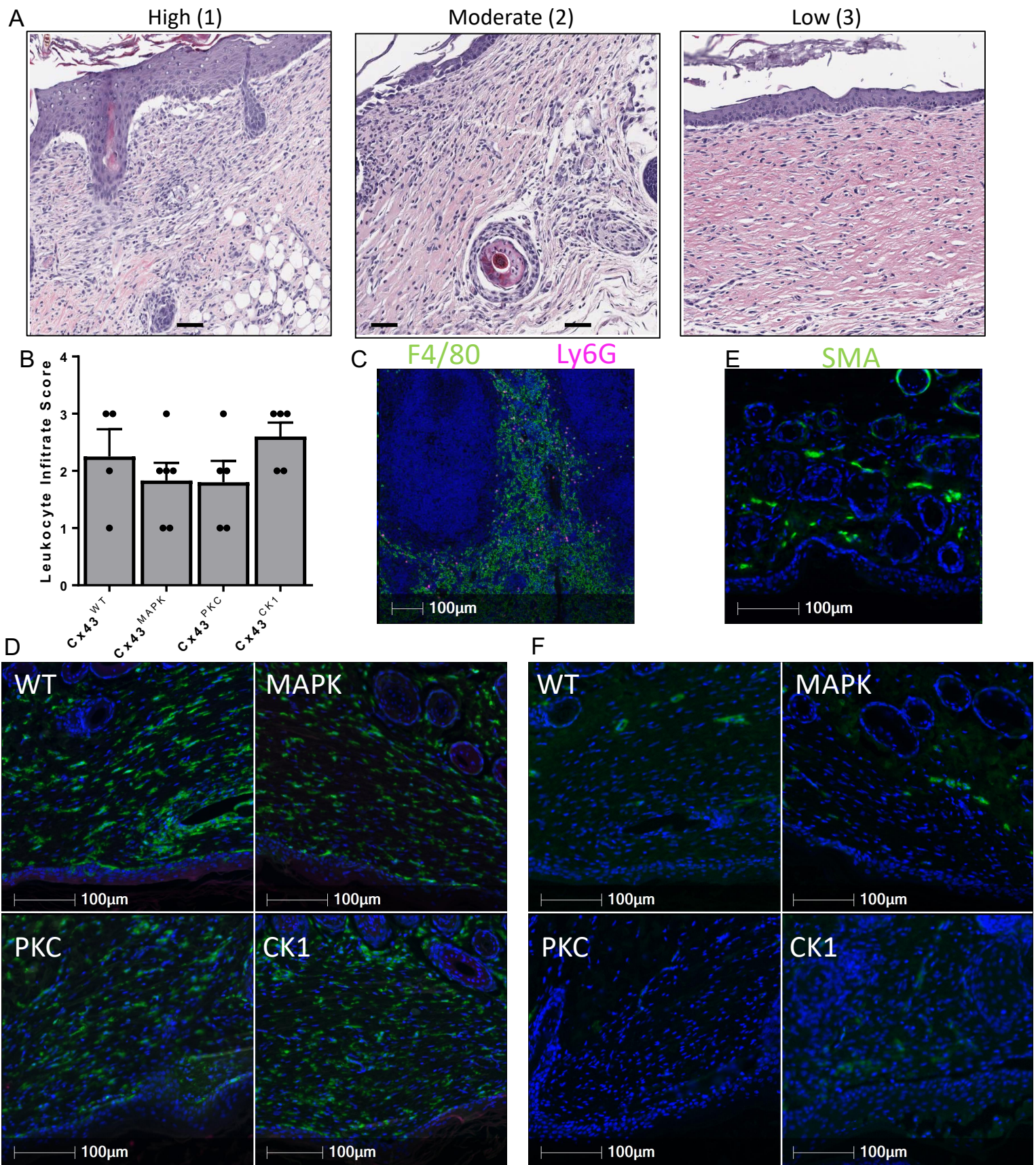
Figure S2. Blocking Cx43 phosphorylation at MAPK, PKC or CK1 sites does not change leukocyte infiltration in healed wounds. (A) Representative images of high-1, moderate-2 or low-3 scores of leukocyte infiltration in H&E stained sections of healed wounds. Scale bar is 500µm. (B) Quantification of leukocyte scoring. Cx43WT=4, Cx43MAPK=6, Cx43PKC=5, Cx43CK1=5 mice per group. (C) Multicolor fluorescent staining for F4/80 (macrophages) and Ly6G (neutrophils) in positive control mouse spleen tissue. (D) Representative images of multicolor fluorescent staining for F4/80 (macrophages) and Ly6G (neutrophils) in day 13 healed wounds. (E) Fluorescent staining for smooth muscle actin (SMA, myofibroblasts) in positive control mouse skin. (F) Representative images of fluorescent staining for SMA in day 13 healed wounds.
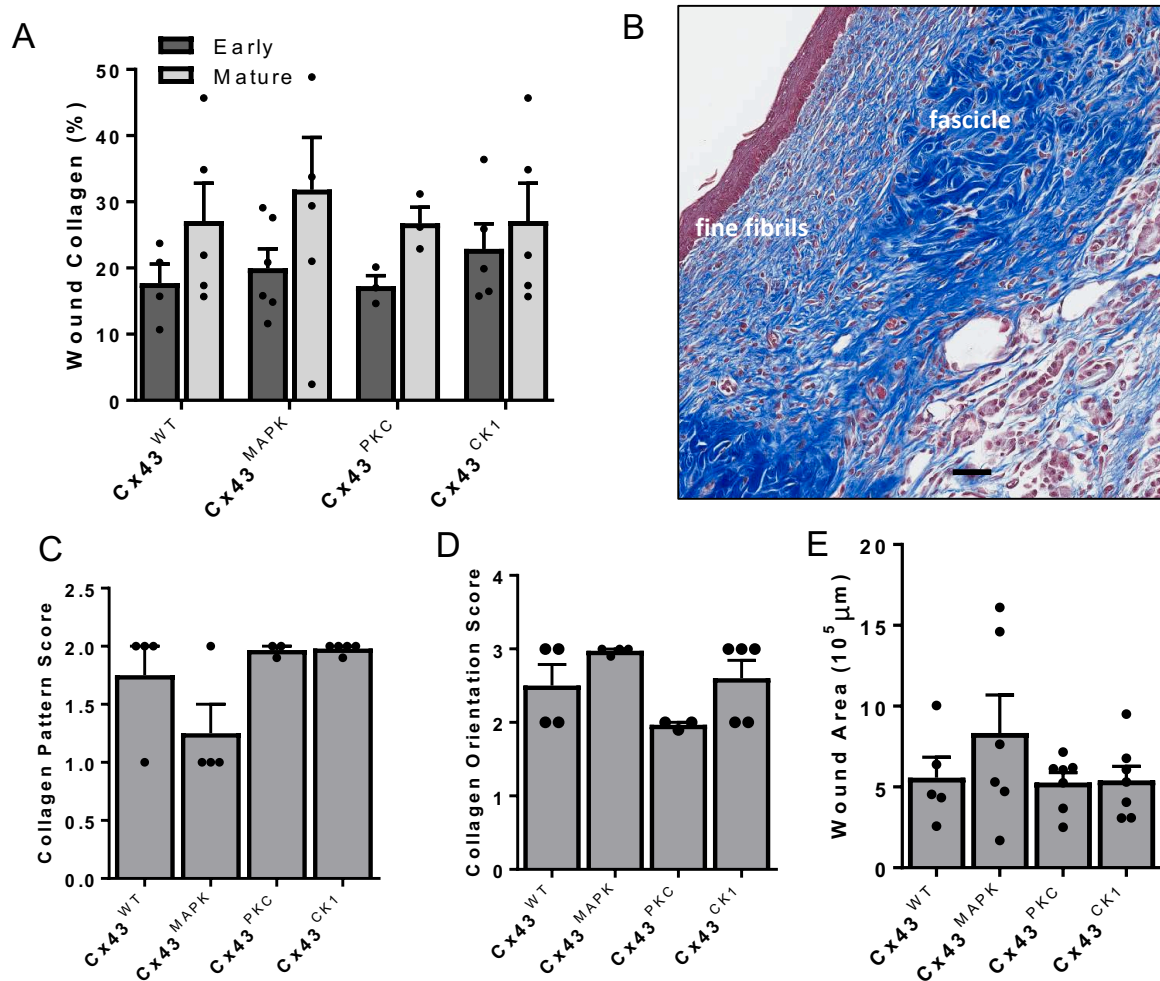
Figure S3. Blocking Cx43 phosphorylation at MAPK, PKC or CK1 sites does not change collagen composition in healed wounds. (A) Quantification of early (light blue) or mature (dark blue) Masson's trichrome blue staining. (B) Quantification of collagen orientation scoring (verticle-1, mixed-2, or horizontal-3). (C) Representative image fine fibrils or fascicle collagen patterns. Scale bar is 500μm. (D) Quantification of collagen pattern scoring (fine fibrils-1, mixed-2, fascicle-3). (E) Total area of wounds identified in Masson's trichrome blue staining. Cx43^WT=4, Cx43^MAPK=6, Cx43^PKC=5, Cx43^CK1=5 mice per group.