

## Supplemental figure legends

### Figure S1

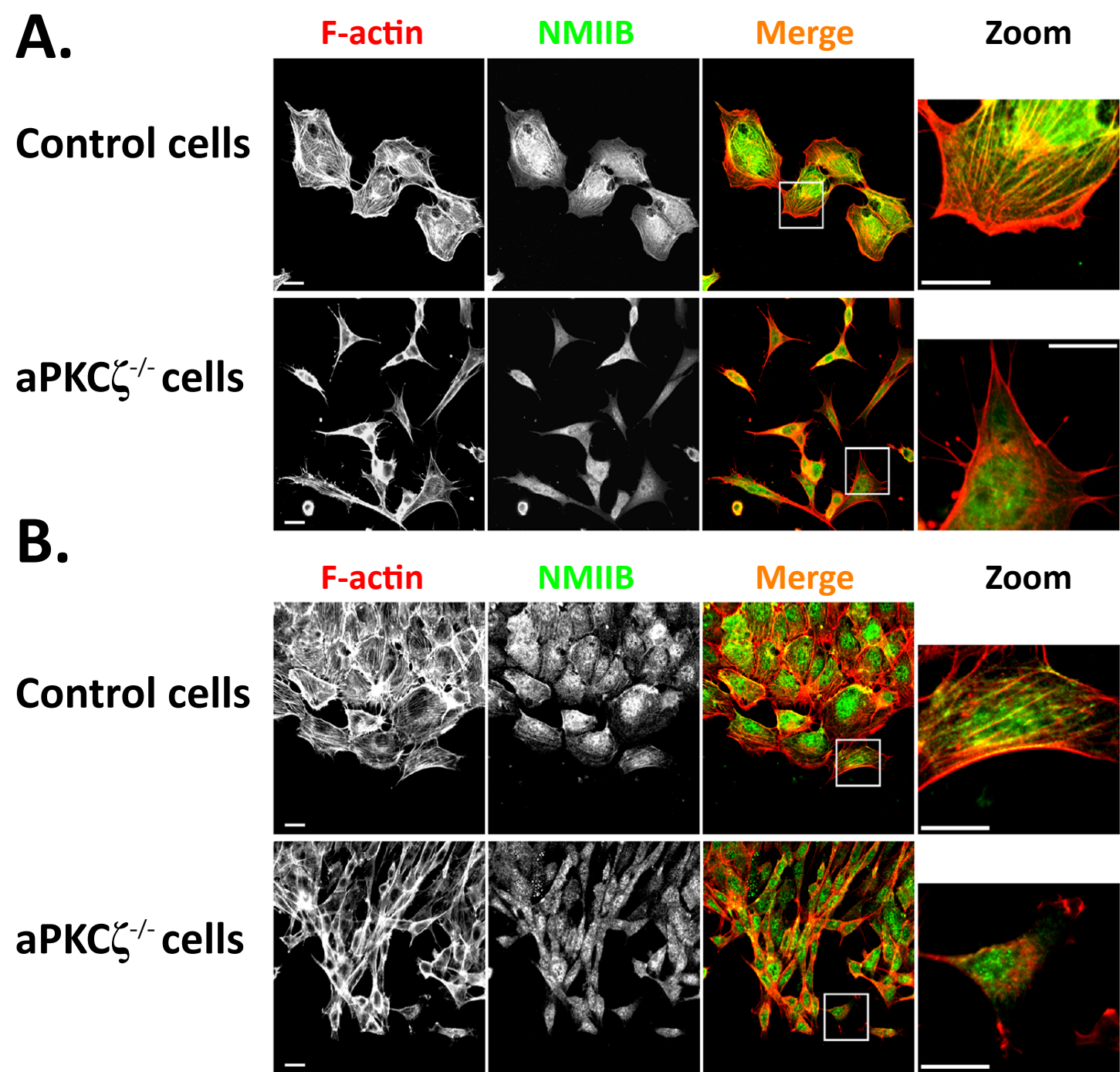
**aPKC $\zeta$  affected the acto-NMIIB cytoskeleton.** aPKC $\zeta^{-/-}$  and control cells were seeded on cover slips (i.e., dispersed cells) **(A)** or subjected to wound scratch assay **(B)**, and stained for F-actin, using Rhodamine-Phalloidin, and for NMIIB, using C-terminal specific antibody conjugated to Cy2. Bars are 20 $\mu$ m.

### Figure S2

**aPKC $\zeta$  is required for proper focal adhesion.** aPKC $\zeta^{-/-}$  and control cells were subjected to wound scratch assay and immunostained with anti-pY118-paxillin. Bars are 20 $\mu$ m.

### Figure S3

**aPKC $\zeta^{-/-}$  affects cell polarity of migrating cells.** aPKC $\zeta^{-/-}$  and control cell lines were stimulated by scratching a cell monolayer with a pipette tip. Migration was analyzed by time-lapse confocal microscopy. Images were taken 7h after the scratch. Bars are 10 $\mu$ m.



**Fig. S1**

Control cells

aPKC $\zeta^{-/-}$  cells

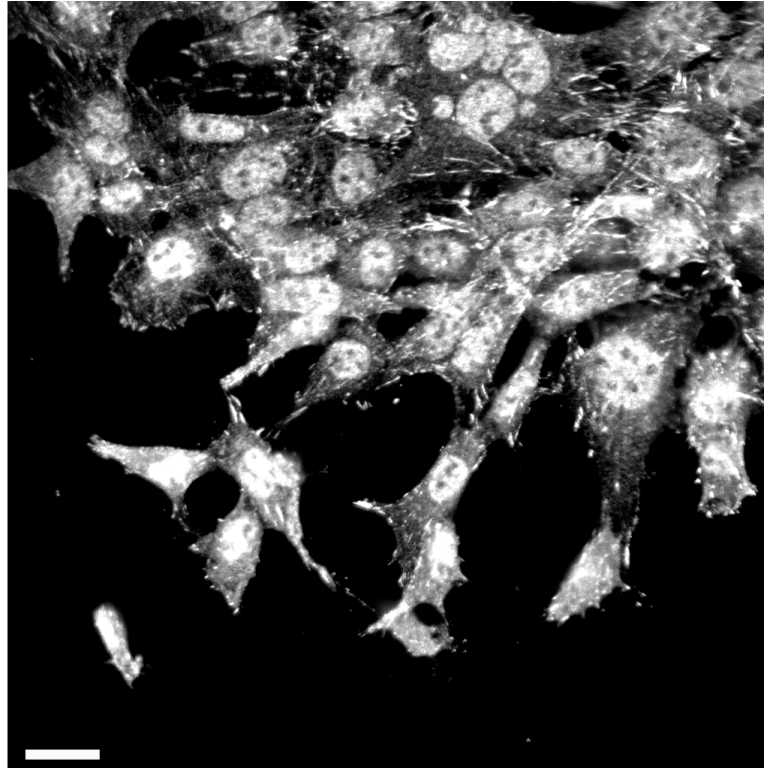
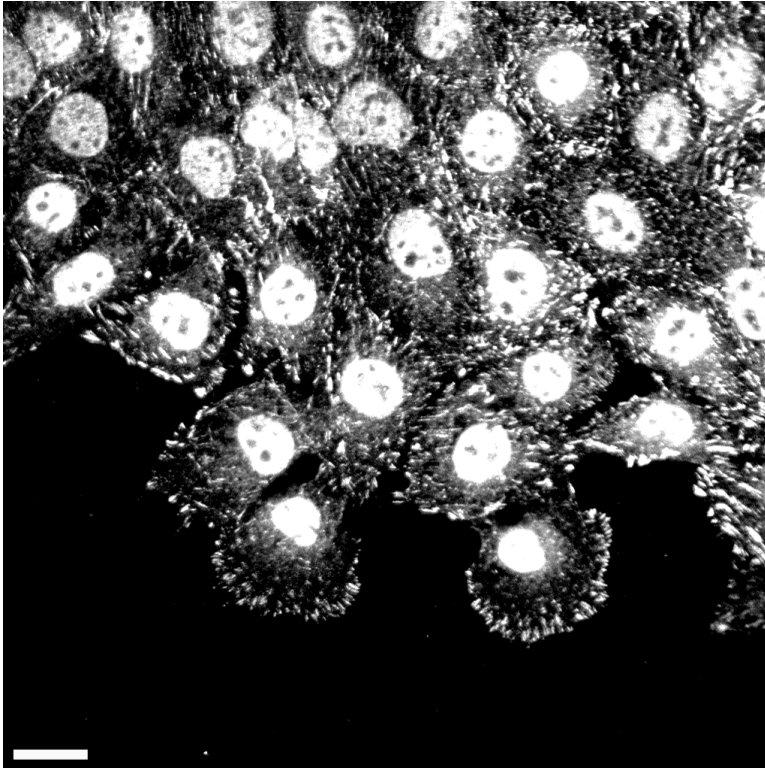
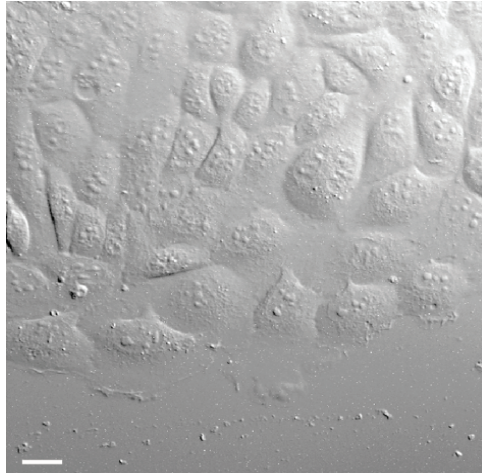
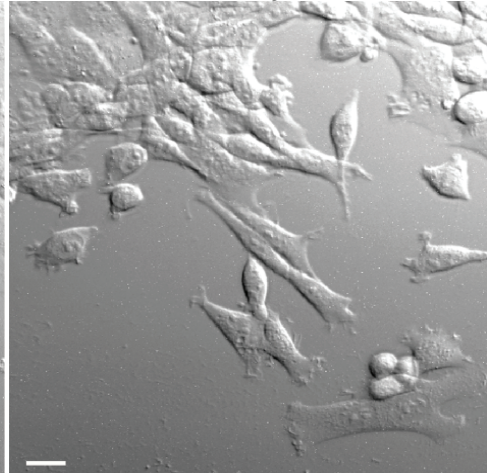


Fig. S2

**Control cells**



**aPKC $\zeta$ <sup>-/-</sup> cells**



**Fig. S3**