

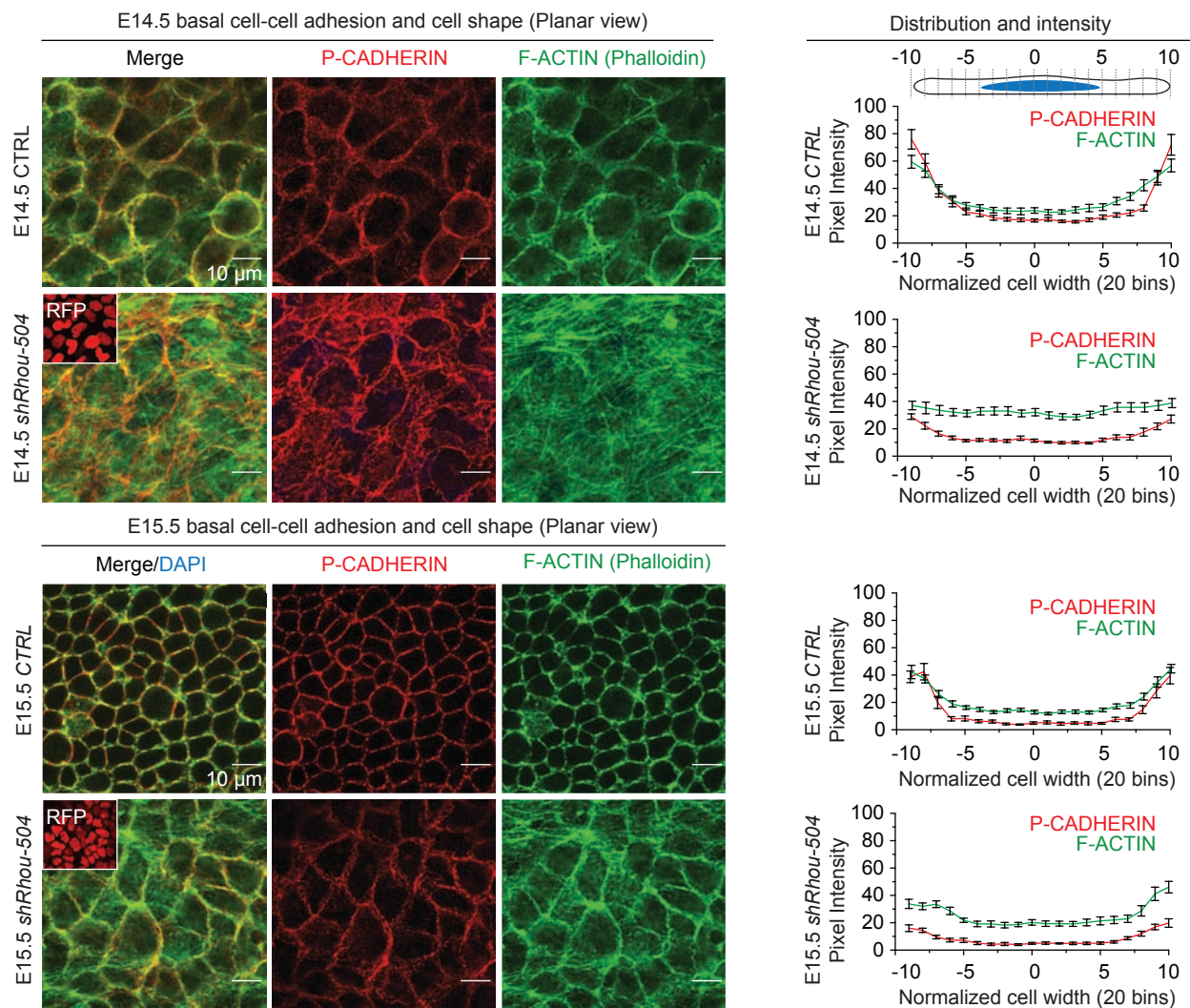
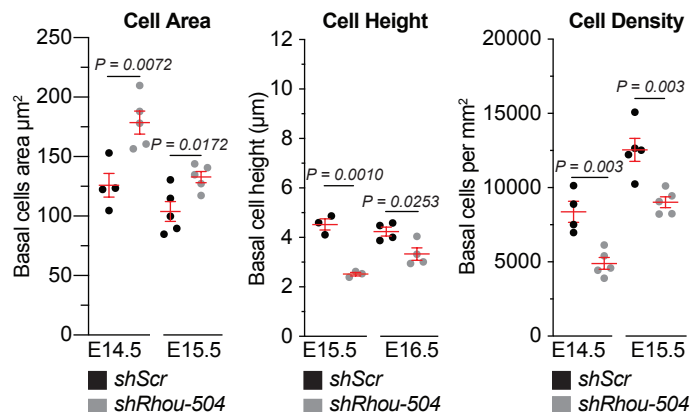
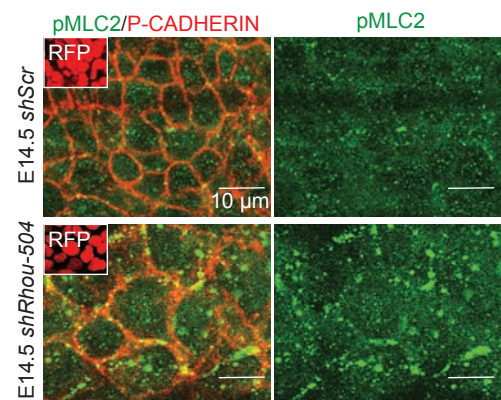
A**Perturbations in Actin and Adherens Junctions upon RHOU Knockdown****B Cell Shape and Density Perturbations upon RHOU Knockdown****C****E14.5 Basal Cell Myosin**

Figure 5 - supplement 1. RHOU Depletion via *shRhou-504* Results in Analogous Defect in Orchestrating Cellular Junction Dynamics within the Developing Epidermis. (A) Perturbations in cortical distribution of F-ACTIN and P-CADHERIN upon *shRhou-504* knockdown. Planar views from whole-mount immunofluorescence of transduced E14.5 (Top) and E15.5 (Bottom) head skins. P-CADHERIN marks adherens junctions, Phalloidin marks F-ACTIN, RFP verifies transduction. Shown are representative images from the midplanes of the basal cell layers. $n=3$ embryos. Scale bars, 10 μm . (Right) Pixel intensity measurements across the diameter of basal progenitors. **(B)** Cell area, height and density measurements reveal perturbations upon RHOU knockdown within the epidermal plane. For quantifications of cell area error bars represent SEM from E14.5 *shScr* $n=4$, E14.5 *shRhou-504* $n=5$, E15.5 *shScr* $n=5$ and E15.5 *shRhou-504* $n=5$ embryos. For quantifications of basal cell heights, error bars represent SEM from E15.5 *shScr* $n=3$, E15.5 *shRhou-504* $n=3$, E16.5 *shScr* $n=4$ and E16.5 *shRhou-504* $n=4$ embryos. For quantifications of basal cell densities, error bars represent SEM from E14.5 *shScr* $n=4$, E14.5 *shRhou-504* $n=5$, E15.5 *shScr* $n=5$ and E15.5 *shRhou-504* $n=5$ embryos. Normal distribution of the data was determined using the Shapiro-Wilk test. Parametric, independent, unpaired two-tailed t -test was used to compare the data. **(C)** Increase in the phosphorylation of Myosin II light chain upon *shRhou-504* knockdown. Planar views from whole-mount immunofluorescence of transduced E14.5 skins. P-CADHERIN and pMLC2 immunofluorescence. RFP verifies transduction. Shown are representative images from the midplanes of the basal cell layers. $n=3$ embryos. Scale bars, 10 μm .