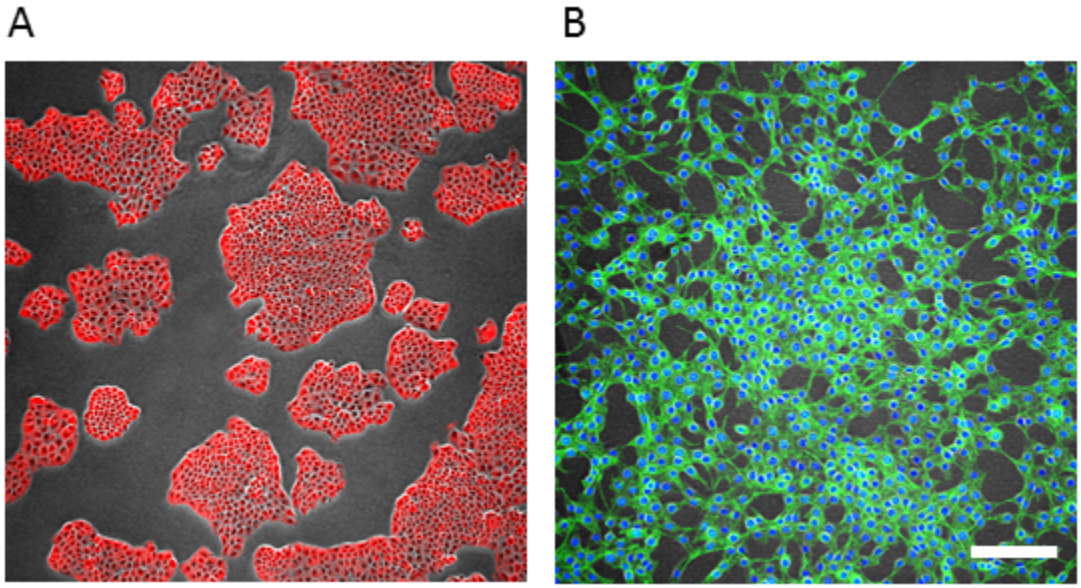
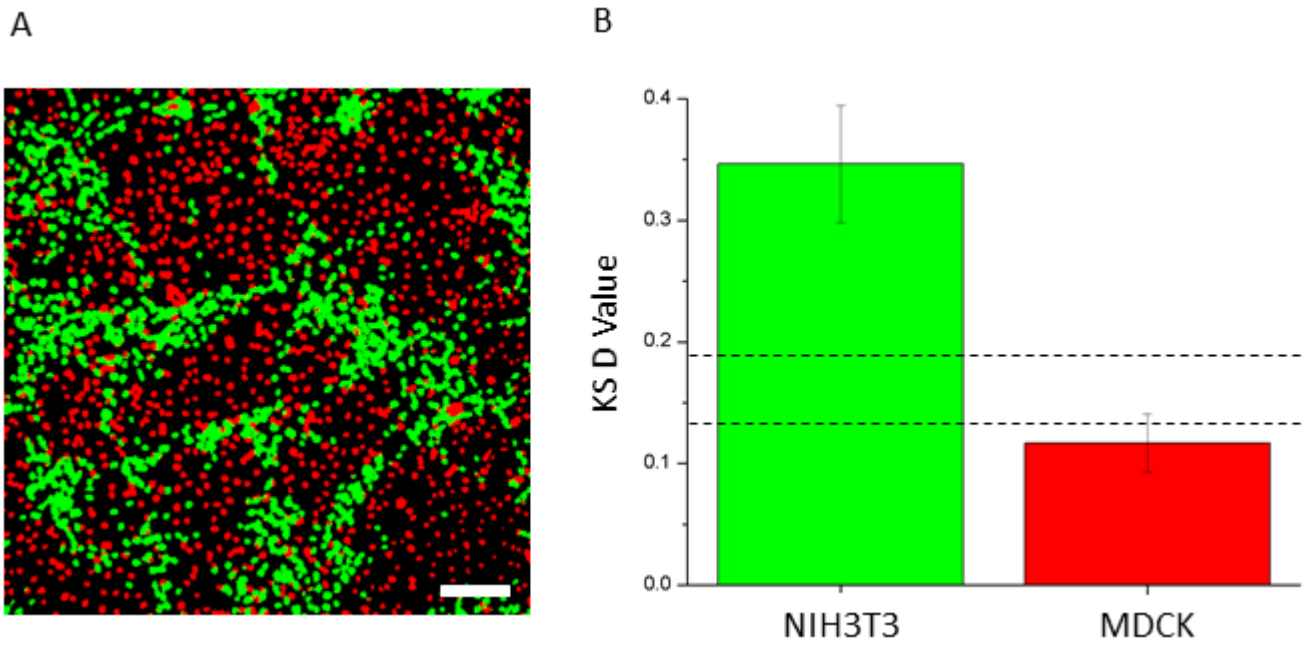


Supplementary FIG. 1 Typical growth patterns of mono cultured cells in vitro.
(A) MDCK cells (red; Actin) develop into island like aggregates until eventually creating a monolayered epithelial sheet, formed through tight cell-cell junctions and strong cell-substrate adherence. (B) NIH3T3 cells (green; Actin) equidistantly space themselves to form an intricate mesh dependent upon cell-cell adheren junctions and transient cell-substrate binding. (Scale bar = 50μm)



Supplementary Fig. 2 Cocultured NIH3T3s and MDCKs on a flat surface mitotically inhibited via thymidine.
(A) NIH3T3s were pre-loaded with CellTracker Green CMFDA dye for 30 minutes prior to experiments. Cells were then mixed (1:1) and deposited at twice the seeding density (~ 50 000 cell/cm2 each) of channelled experiments with thymidine (2mM) for 48 hrs. Samples were then fixed and stained with DAPI and imaged on the confocal microscope. NIH3T3s (green) and MDCKs (red) display the same phase separation as mitotically active cells. Scale bar = 200μm. (B) Kolmogorov-Smirnoff test analyzing the presence of patterned behaviour in both cell types. The lower (0.136) and higher (0.195) critical values (dotted lines) correspond to the confidence threshold for which the null hypothesis of a random distribution can be rejected. Results reveal that inhibition of mitosis has no effect in coculture as only NIH3T3s display patterning. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article).