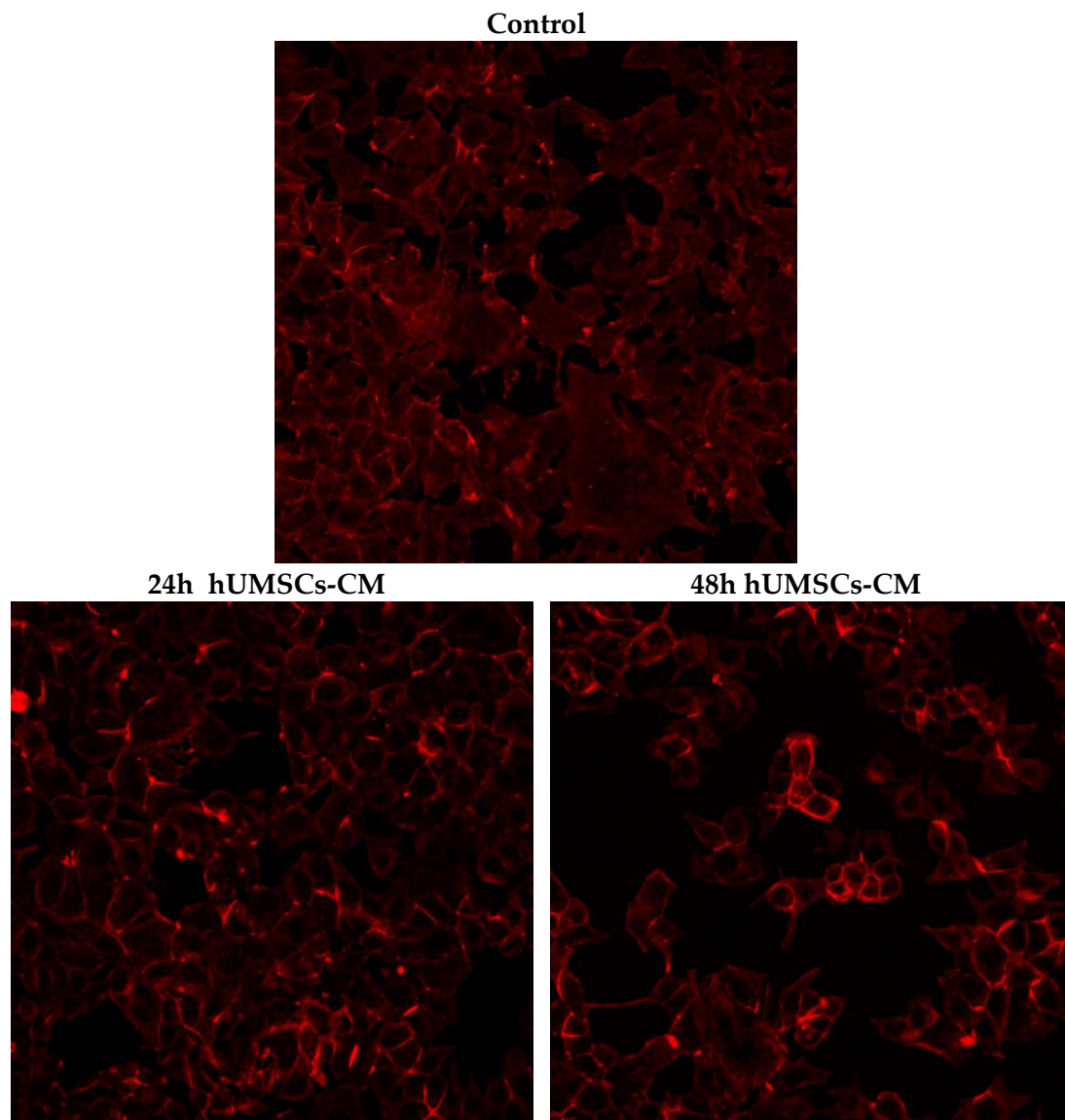
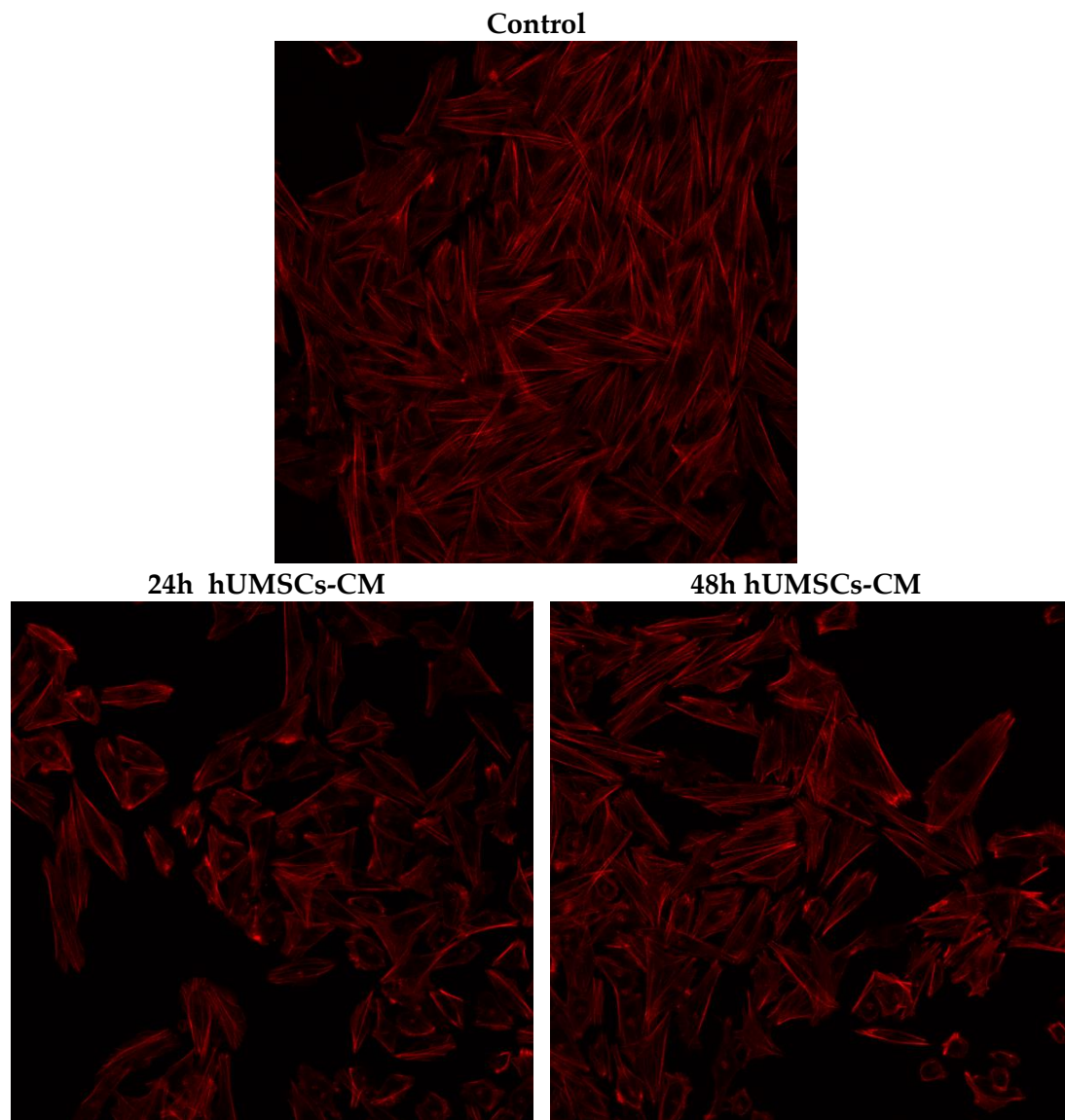


## MCF7 2D substrates



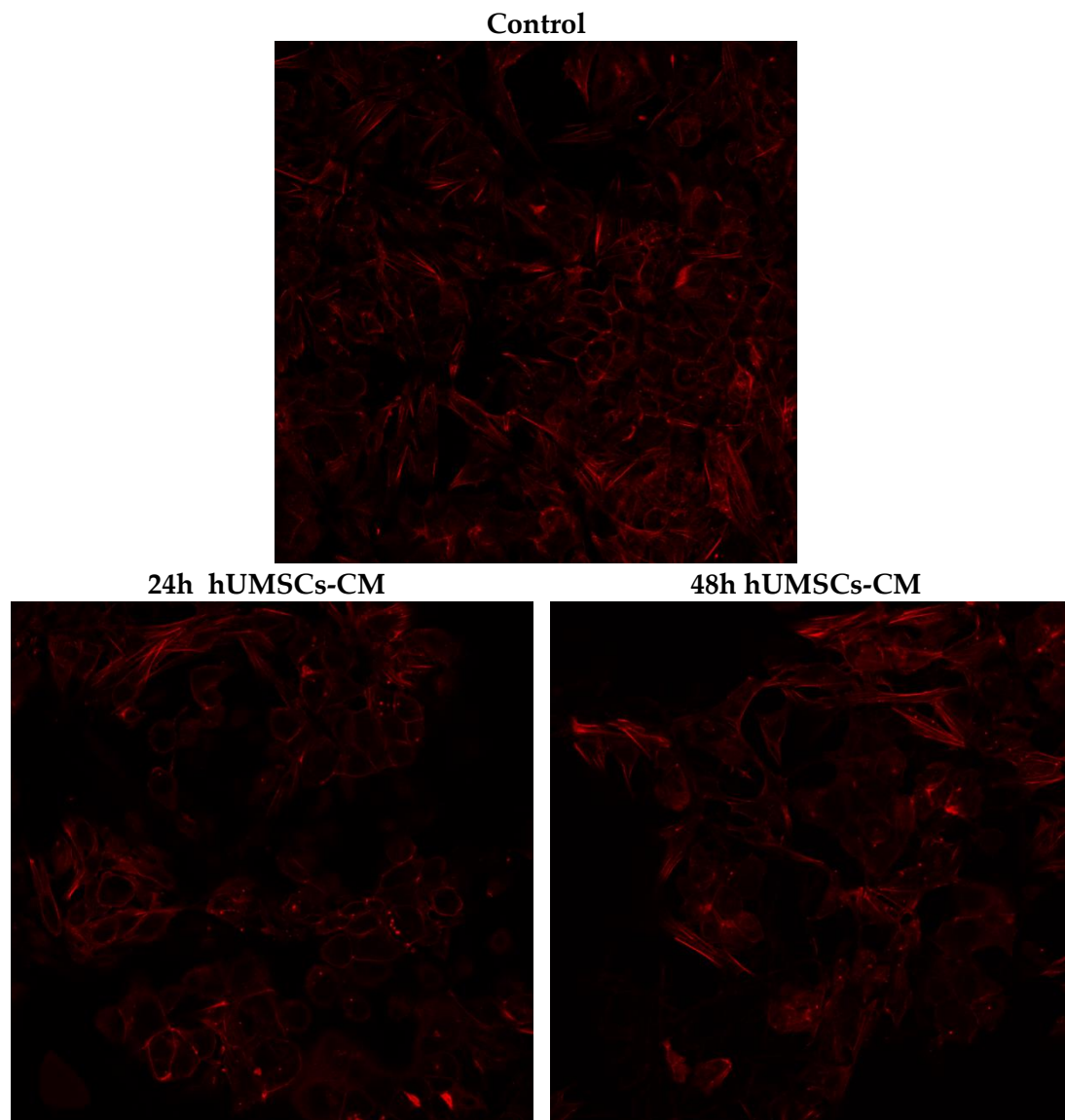
**Supplementary Figure S1.** F-actin morphological changes in MCF-7 cells of control and treated with hUMSCs-CM at 24h and 48h, upon collagen coated type I substrates. Interestingly, post 48h of treatment F-actin is perinuclear co-located indicating a restricted cell motility

## SKBR3 2D substrates



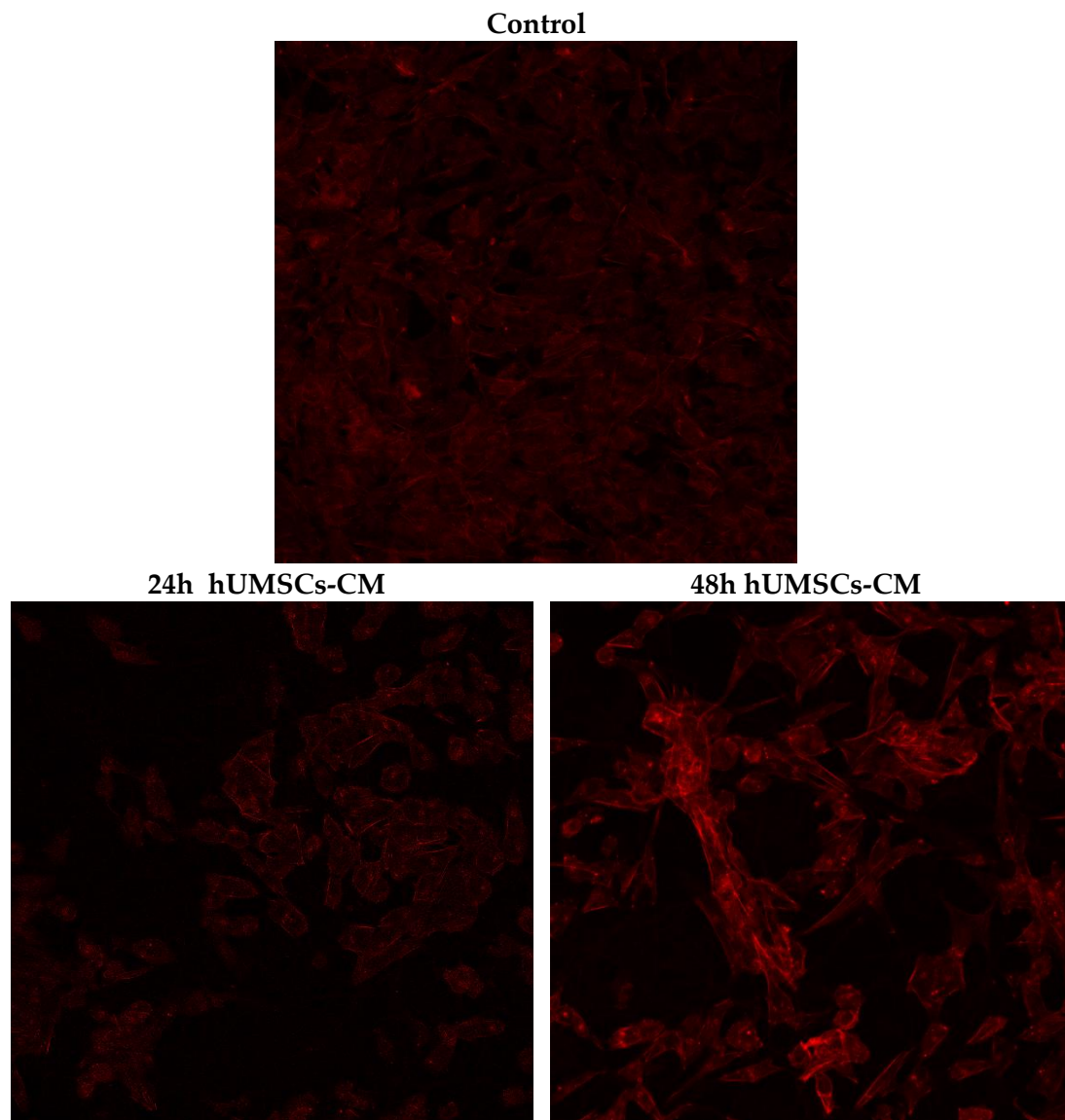
**Supplementary Figure S2.** F-actin distribution in SKBR-3 cells seeded on collagen coated type I 2D substrates. In control cells F-actin stress fibers revealed fully extended whereas post 24h of treatment F-actin depolymerized, following a further polymerization after 48h of treatment.

## MCF7 3D scaffolds



**Supplementary Figure S3.** F-actin morphology of MCF-7 cells upon PCL 3D scaffolds. Cellular morphology was not significantly changed; however, the cell density of control cells was higher than post treated cells.

## SKBR3 3D scaffolds



**Supplementary Figure S4.** F-actin distribution of SKBR-3 cells upon PCL 3D scaffolds. Cell morphology was altered significantly post 24 h of treatment with hUMSCs where F-actin located perinuclear giving a spherical-like shape to cells. Post 48 h of treatment, F-actin seems to re-polymerized with enhanced stress fibers.