

# Supplementary information for

## **Microfluidic co-culture system for cancer migratory analysis and anti-metastatic drugs screening**

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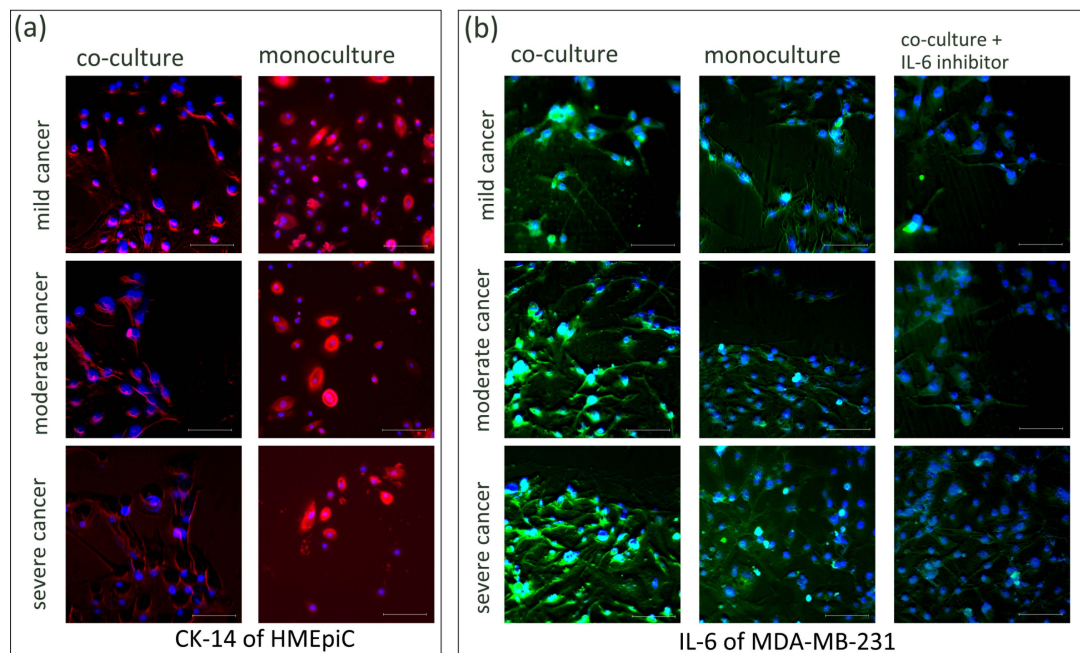
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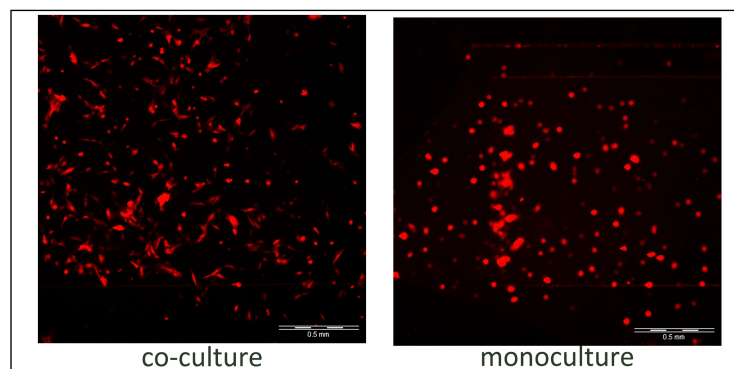
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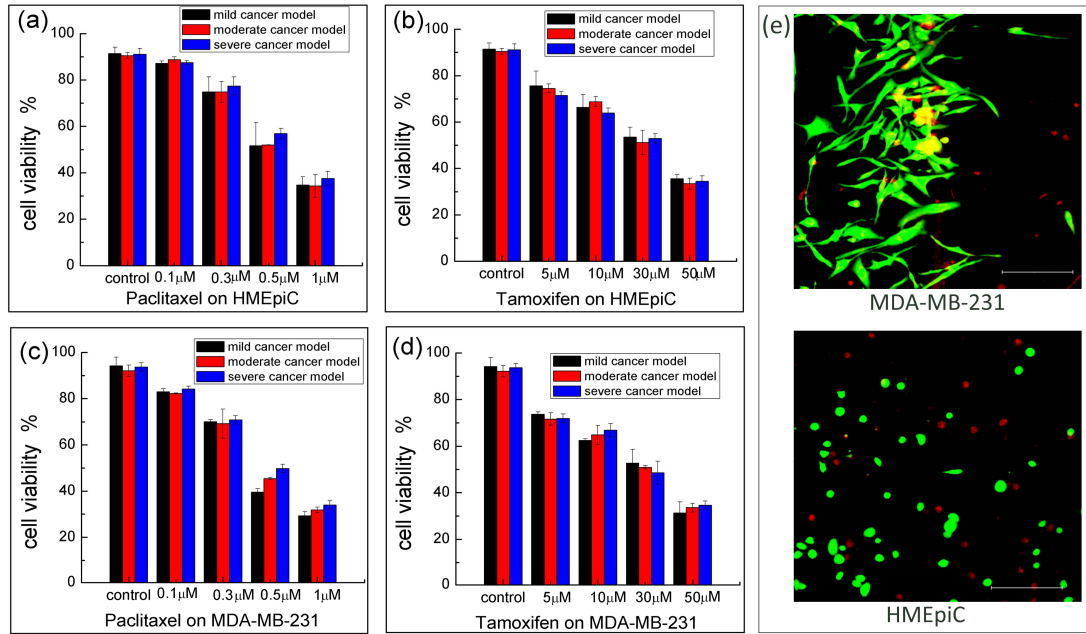
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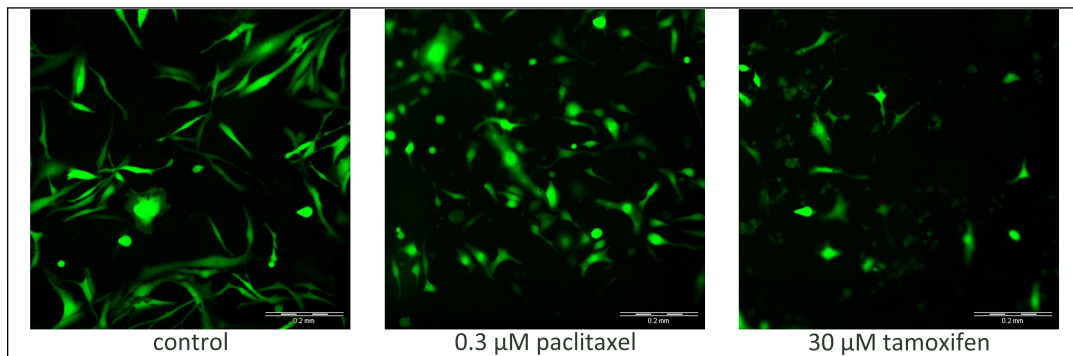
**Supplementary Fig. S1.** (a) Immunofluorescence images of CK-14 (in red) of HMEpiC cells under co-culture and monoculture conditions in three cancer models. (b) Immunofluorescence images of IL-6 (in green) of MDA-MB-231 cells under co-culture, monoculture and IL-6 inhibitor conditions in three cancer models. All of the optical images have the same scale bar: 100  $\mu\text{m}$ , the nucleus is in blue.



**Supplementary Fig. S2.** Morphological characteristics of HMEpiC cells in co-culture condition and monoculture condition. HMEpiC cells in red were transfected with RFP and cultured in moderate cancer model. The optical images have the same scale bar: 500  $\mu\text{m}$ .



**Supplementary Fig. S3.** (a-d) Statistical analysis of the cell viability of the MDA-MB-231 or HMEpiC cells at different concentrations of paclitaxel or tamoxifen, respectively. The error bars stand for the standard deviations calculated from separate assays (n=4). (e) The merged images of the live/dead staining images of the MDA-MB-231 and HMEpiC cells. The sample of images was at 10  $\mu$ M tamoxifen in the moderate cancer model. The optical images have the same scale bar: 200  $\mu$ m.



**Supplementary Fig. S4.** Morphological characteristics of MDA-MB-231 without or with anti-cancer drugs treatment. MDA-MB-231 cells in green were transfected with GFP and cultured in moderate cancer model. The optical images have the same scale bar: 200  $\mu$ m.