Supporting Information

Multiparametric Biomechanical and Biochemical Phenotypic Profiling of Single Cancer Cells Using Elasticity Microcytometer

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Figure S1. Left (**a**) and right (**b**) confining channel arrays capturing single MCF-10A cells. Most confining channels contained only one cell per channel. In rare cases, multiple single cancer cells were observed to be trapped together in the same confining channels (*e.g.* L10, R23 and R26). These cells were discarded for data analysis. Scale bar, 50 μm.

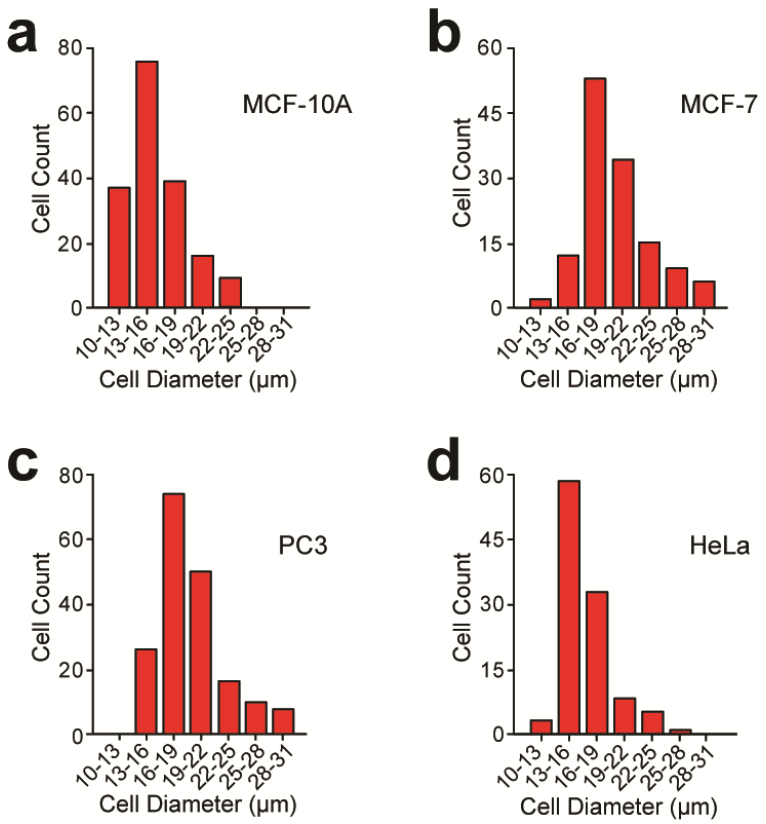

Figure S2. Histogram of cell diameter for MCF-10A (n = 180), MCF-7 (n = 134), PC3 (n = 173), and HeLa cells (n = 105). Data was obtained from three independent experiments.

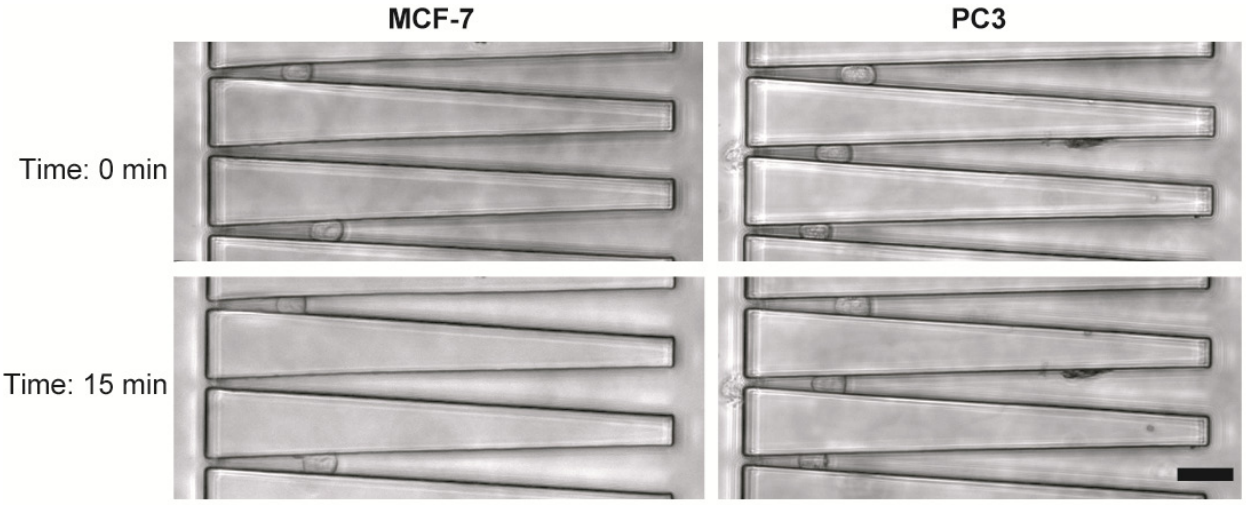

Figure S3. Representative images showing cell shapes of single MCF-7 (*left*) and PC3 cells (*right*) in confining channels immediately after initial cell trapping (top panel) or 15 min after initial cell trapping (bottom panel). Continuous trapping of MCF-7 and PC3 cells in confining channels coated with anti-EpCAM for 15 min led to some changes of cell shapes with enlarged cell contact areas. Scale bar, 50 μm.

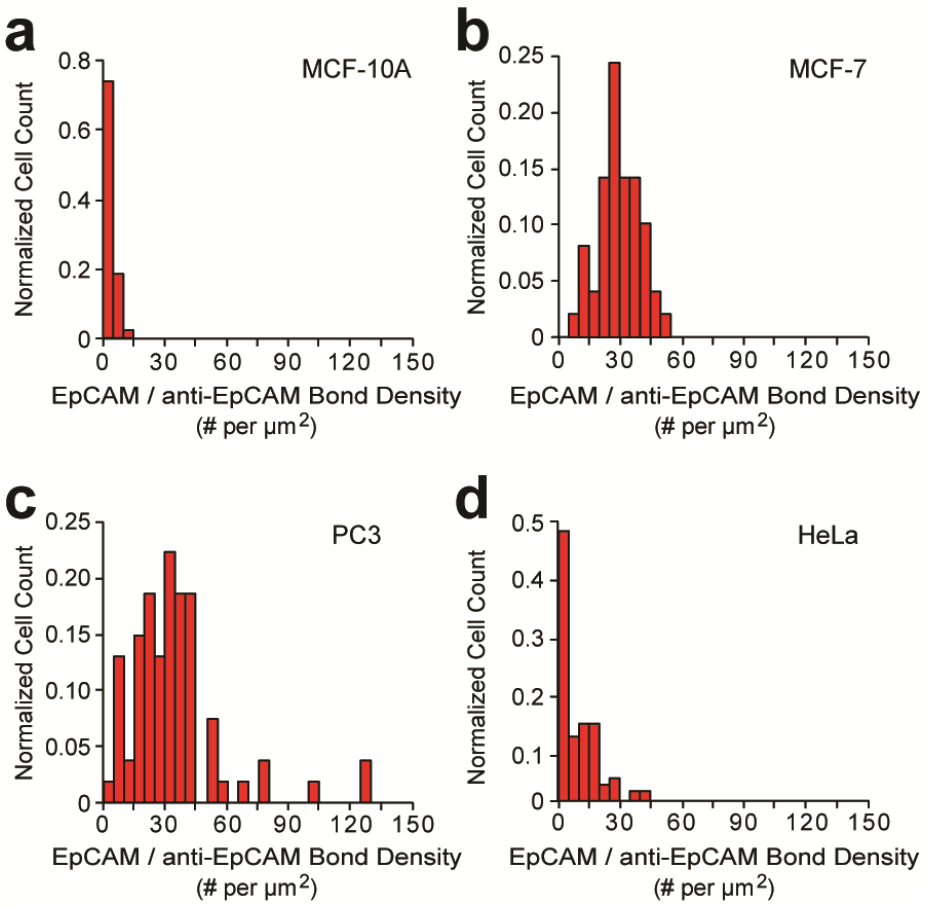

Figure S4. Distribution of single-cell surface EpCAM/anti-EpCAM bond density of the selected cell types ($n > 50$).