Electronic Supplementary Material (ESI) for Soft Matter. This journal is © The Royal Society of Chemistry 2022

Supplementary Material

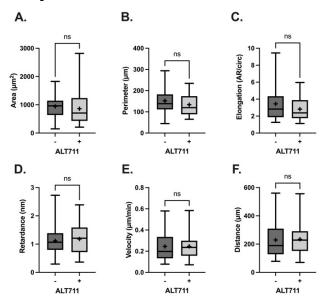


Figure S1: ALT711 effects on spreading and migration for cells on 2D glass surfaces. Actin staining was analyzed to measure ($\bf A$) Area, ($\bf B$) Perimeter, and ($\bf C$) Elongation (Aspect ratio / circularity). N=2, n=44-56 cells. ($\bf D$) Quantitative polarization retardance measurements as a metric for contractility. N=2, n=39-43 cells. Measurements of ($\bf E$) velocity and ($\bf F$) migration distance traveled from MDA-MB-231 cells tracked during 16-hour time-lapses. N=2, n=29-45. All data presented as box/whisker of the range with + indicating the mean.

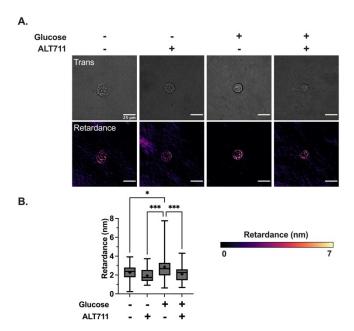


Figure S2: ALT711 effects on contractility for 4T1 breast cancer cells in 1.5mg/mL glycated or non-glycated collagen gels. (**A**) Representative transmittance and retardance images of 4T1 cells in glycated or non-glycated gels treated with or without ALT711 (1mM overnight) from quantitative polarization microscopy (40x). (**B**) Measured values of cell retardance as a metric for cell contractility; N=3, n=34-54 cells. Data presented as box/whisker of the range with + indicating the mean. Scale bars represent 25μm.