Supplementary Information

Focal adhesion dynamics-mediated cell migration and proliferation on silica bead arrays†

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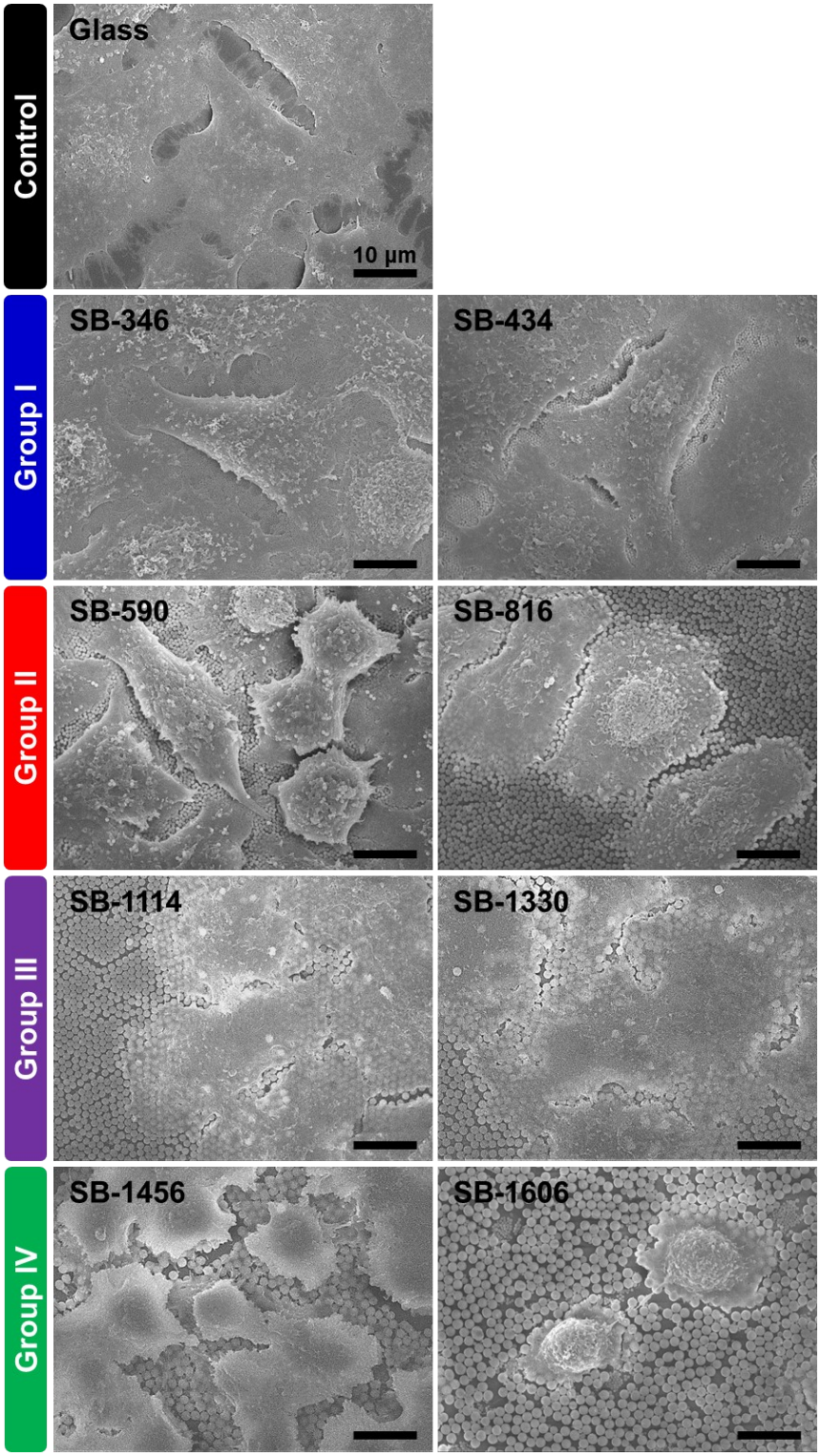

Fig. S1. SEM images of cells on SB arrays. HeLa cells were cultured on glass and SB arrays of various diameters for 48 h. SBs diameter is shown on the top left. Scale bars = 10 μm.

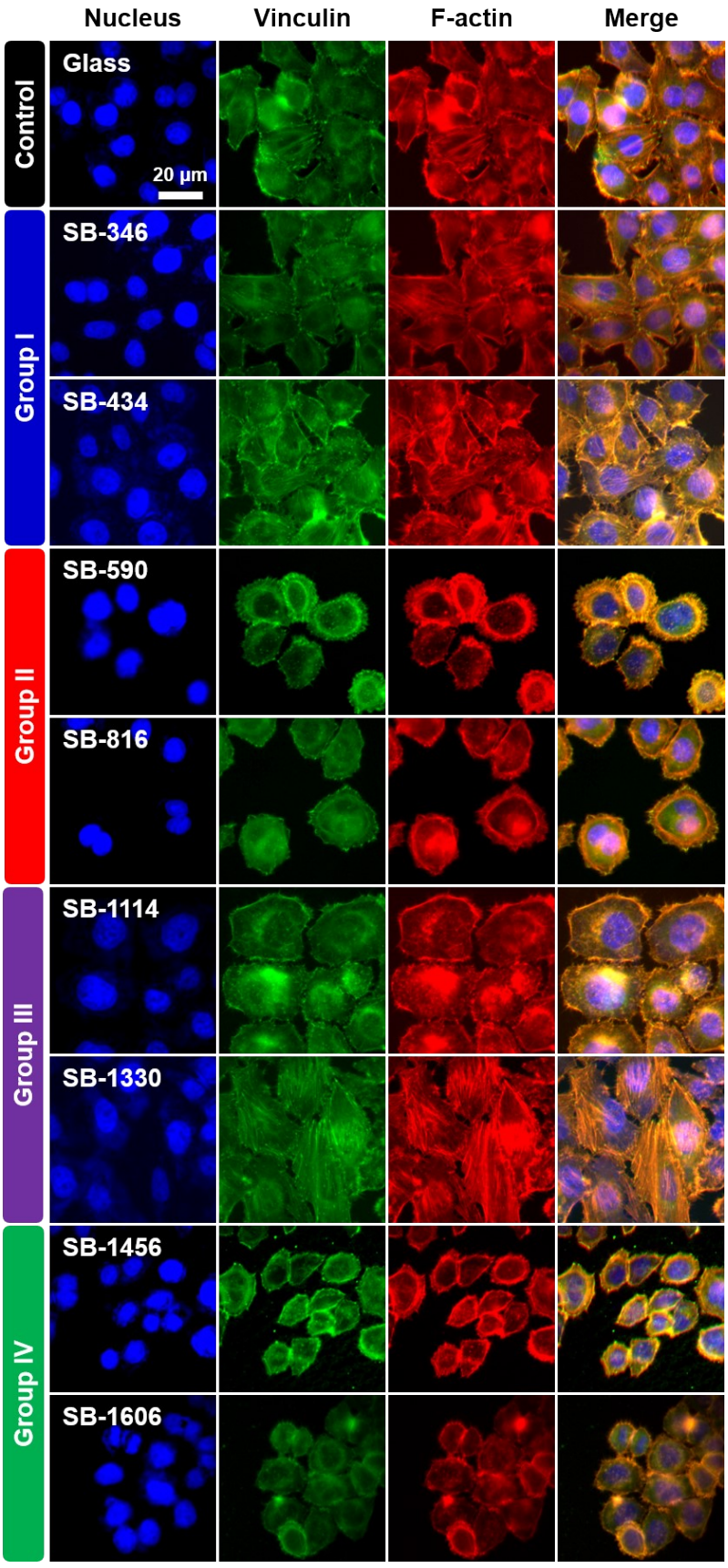
Nucleus
Vinculin
F-actin
Merge
Control
Glass
20 μm
Group I
SB-346
SB-434
Group II
SB-590
SB-816
Group III
SB-1114
SB-1330
Group IV
SB-1456
SB-1606

Fig. S2. Immunofluorescence images of focal adhesions and actin cytoskeleton in cells on SB arrays. HeLa cells were cultured on glass and SB arrays of various diameters for 48 h. SBs diameter is shown on the top left. Nuclei (blue), vinculin (green), and F-actin (red) were detected by DAPI staining, FITC-conjugated antibody against vinculin, and TRITC-conjugated phalloidin, respectively. Scale bars = 20 μm.

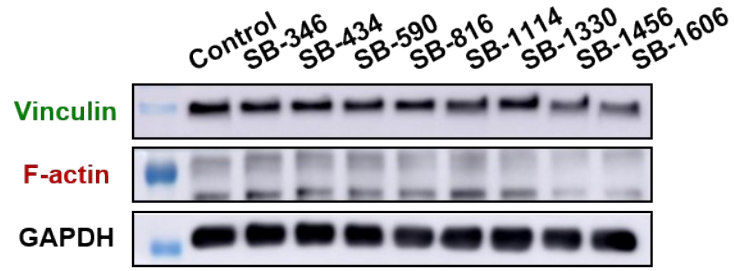

Fig. S3. Western blot analysis of vinculin and F-actin levels in cells cultured on different SBs arrays.

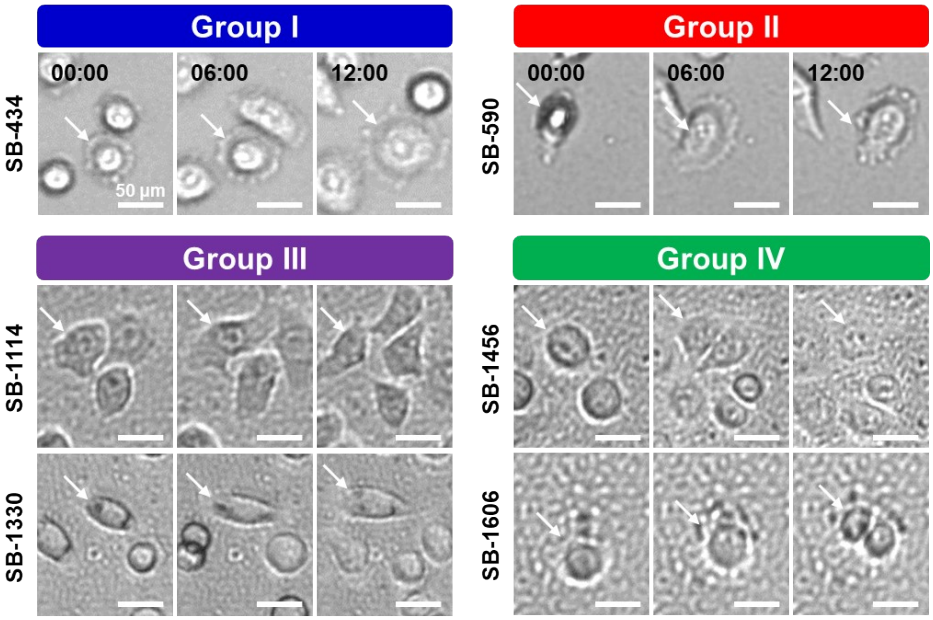

Fig. S4. Time-lapse phase-contrast images of HeLa cells cultured on SB arrays with various diameters. Three different time points are represented as hour:min, and the migratory cells are traced by white arrows. Scale bars = 50 μm.

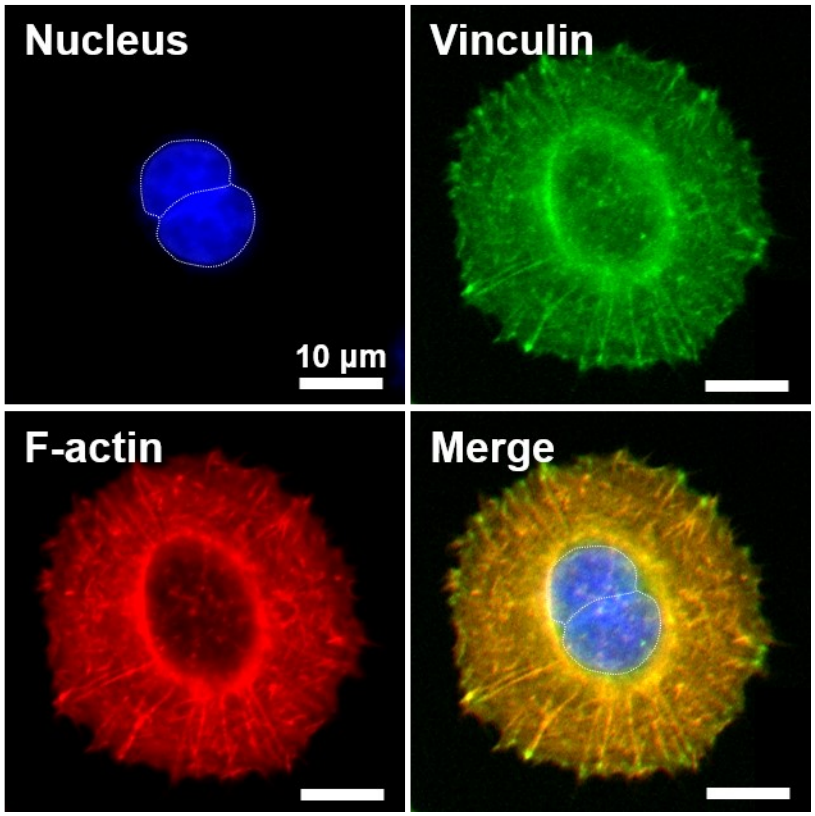

Fig. S5. Cell rounding during mitosis. Immunofluorescence images of HeLa cells during mitosis. Cells cultured on SB-590 for 48 h. Nuclei (blue), vinculin (green), and F-actin (red) were detected by staining with DAPI, FITC-conjugated antibody against vinculin, and TRITC-conjugated phalloidin, respectively. Cell rounding preceded cell division. Divided nuclei are outlined with a white dotted line. Scale bars = 10 μm.