Supplementary Information

Microfluidic Continuum Sorting of Sub-Populations of Tumor Cells via Surface Antibody Expression Levels

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Contents

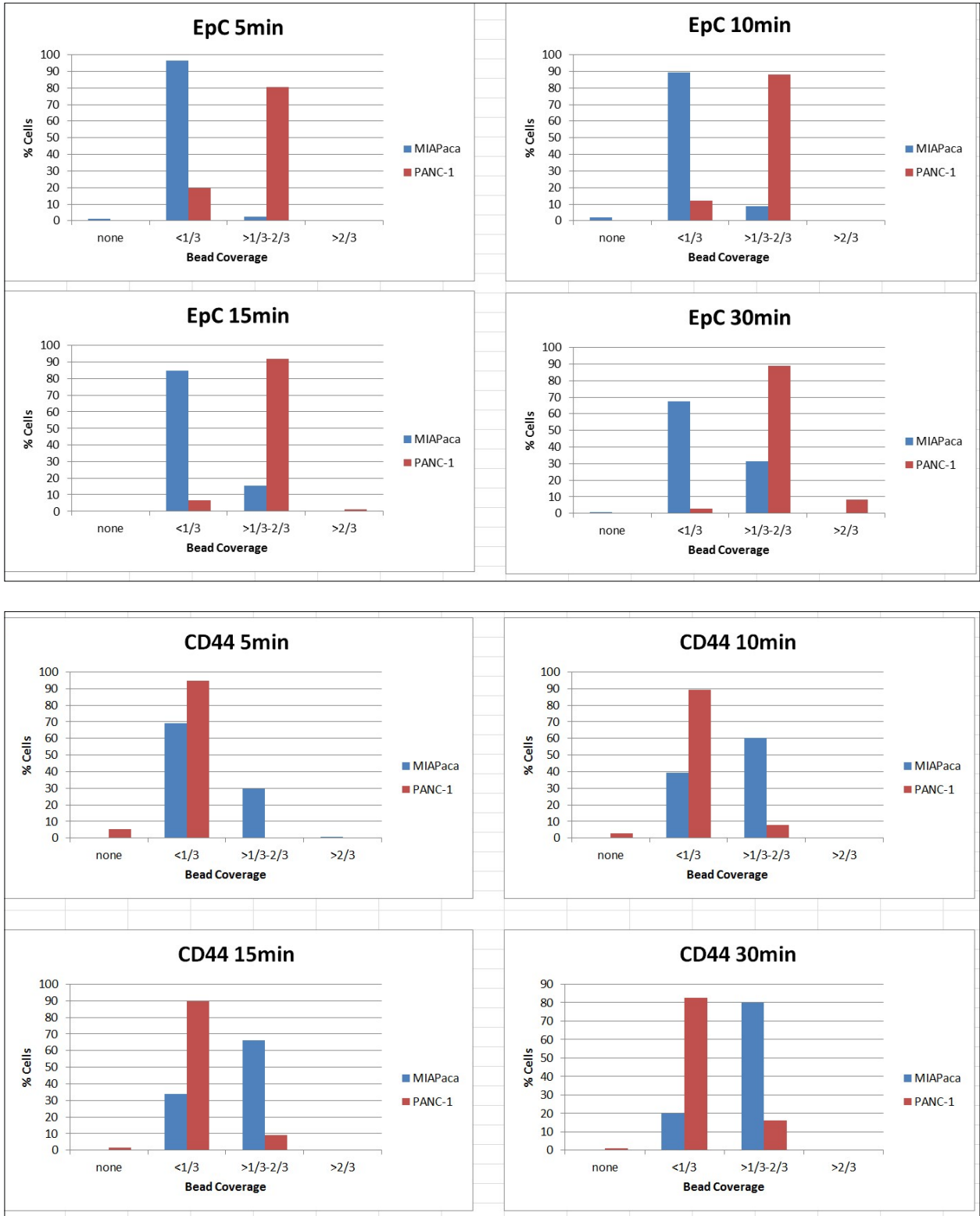**Figure S1: Cancer Cell magnetic bead coverage as a function of incubation times** using both PANC-1 and MiAPaca cell lines and EpCAM and CD44 protein-coated magnetic beads. Times of 5, 10, 15 and 30min were evaluated for each cell line using either type of bead.

Figure S2: Recoveries of cells with > 2/3 bead attachment on the cell surface, as a function of magnetic sorter gap width
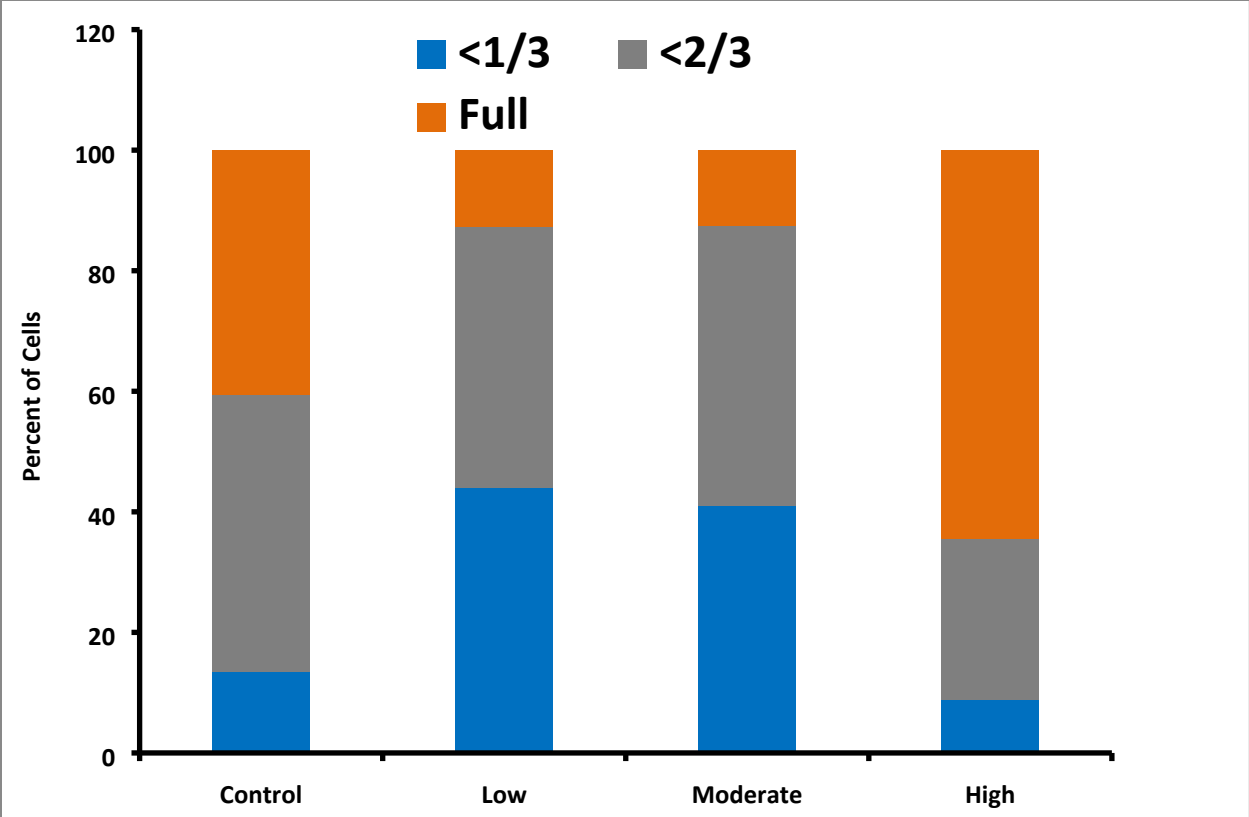
Figure S3: EpCAM bead attachment on PANC-1 cells cultured for six days after sorting according to low, moderate and high EpCAM expression then relabeled with EpCAM beads.
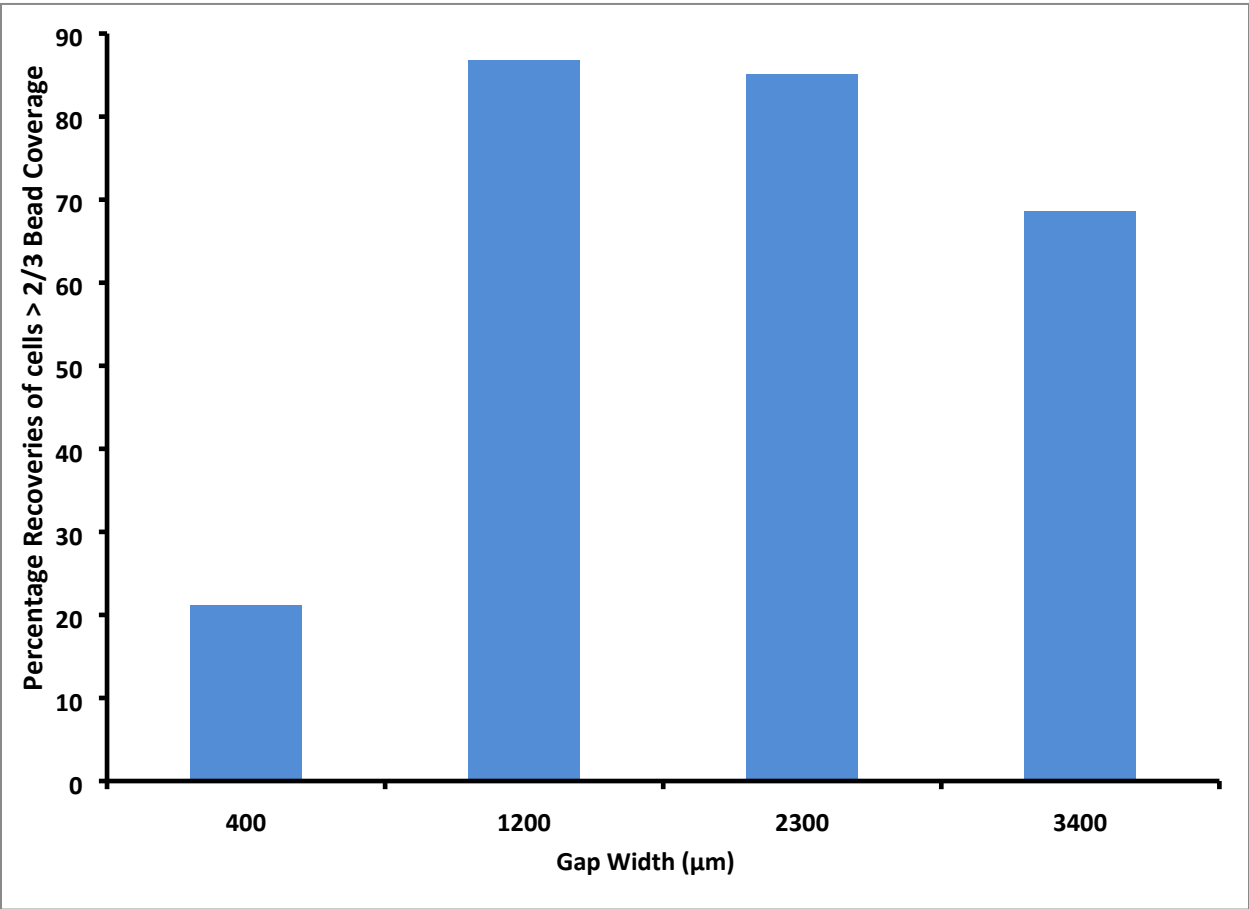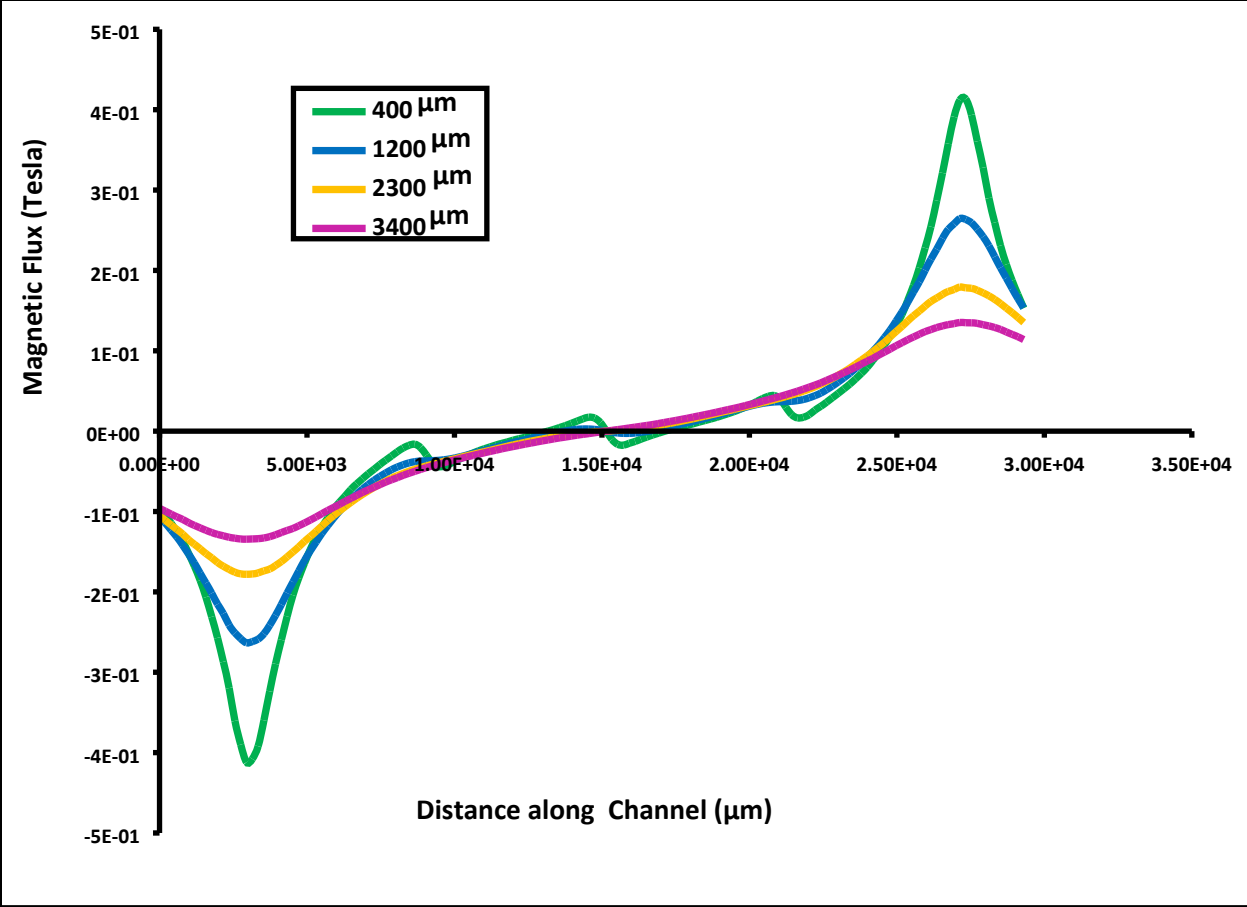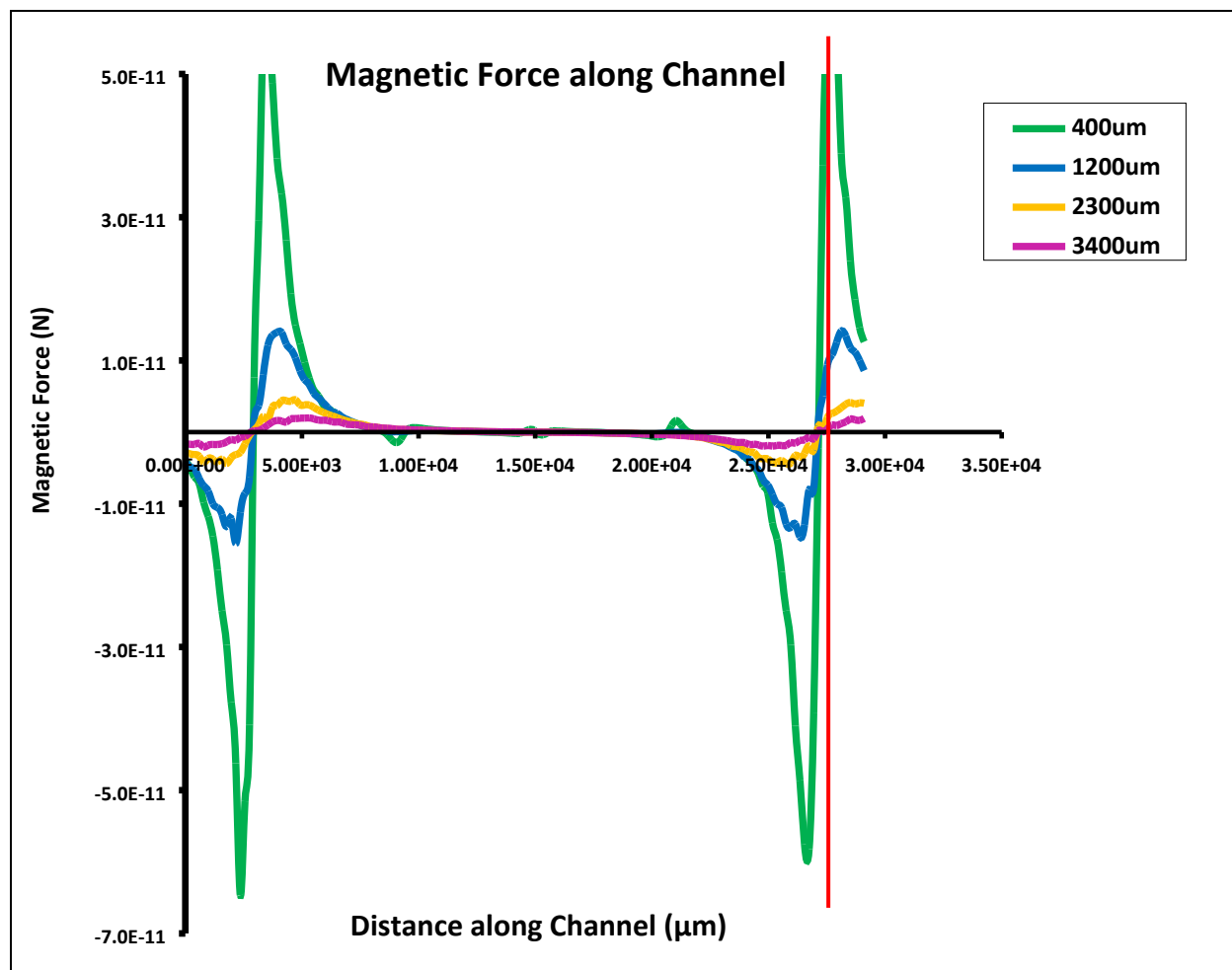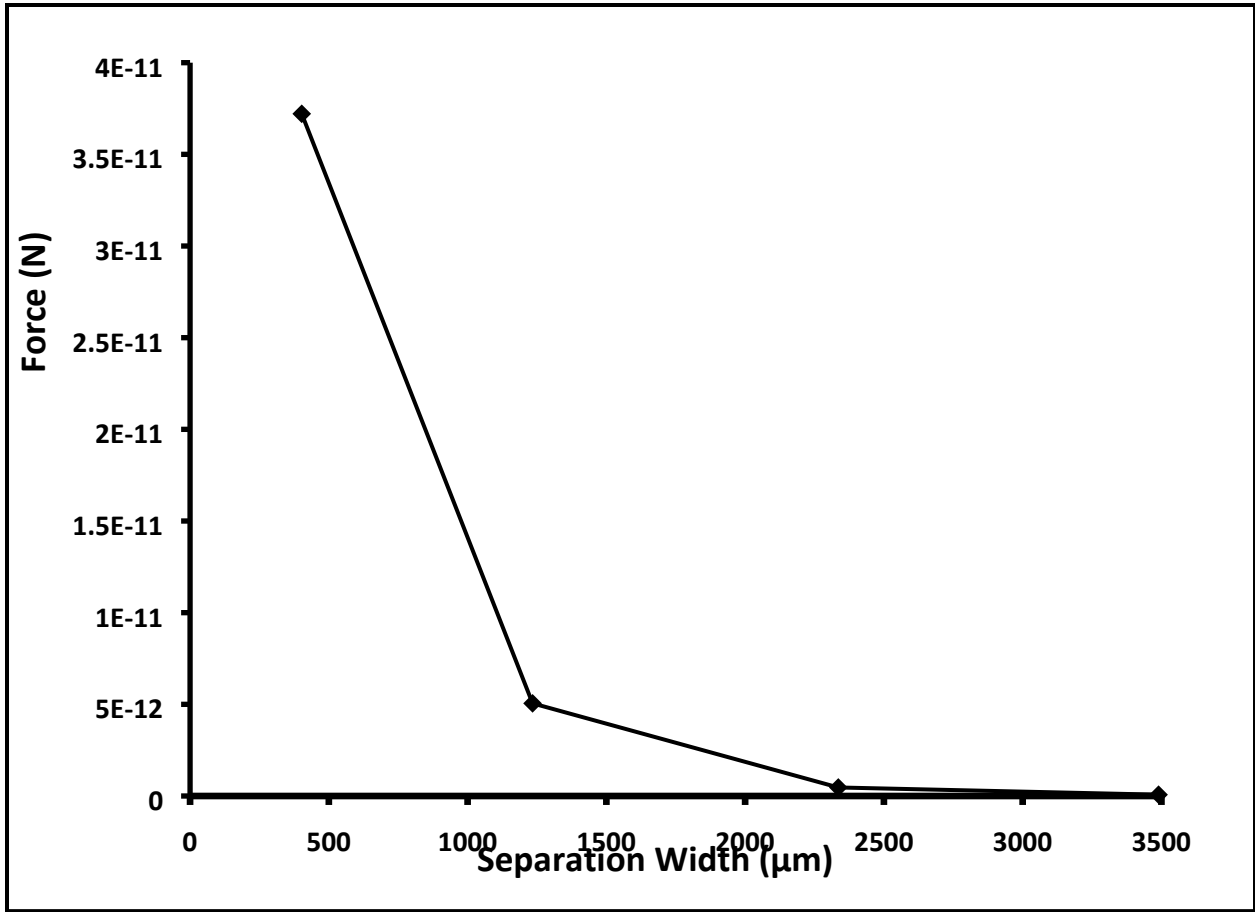
Figure S4: Magnetic Flux normal to contour along channel for the four different separation widths studied. Plots were generated using FEMM.

Figure S5: Magnetic Force experienced by 1μm particle along channel, moving from inlets to outlets, for the four different separation widths studied. Plots were generated using FEMM. Red line indicates channel exit point, plotted in figure S6.

Figure S6: Magnetic Force experienced by 1μm particle just before exiting the sorter channel, for the four different separation widths studied. Plots were generated using FEMM.