

Supplementary Information

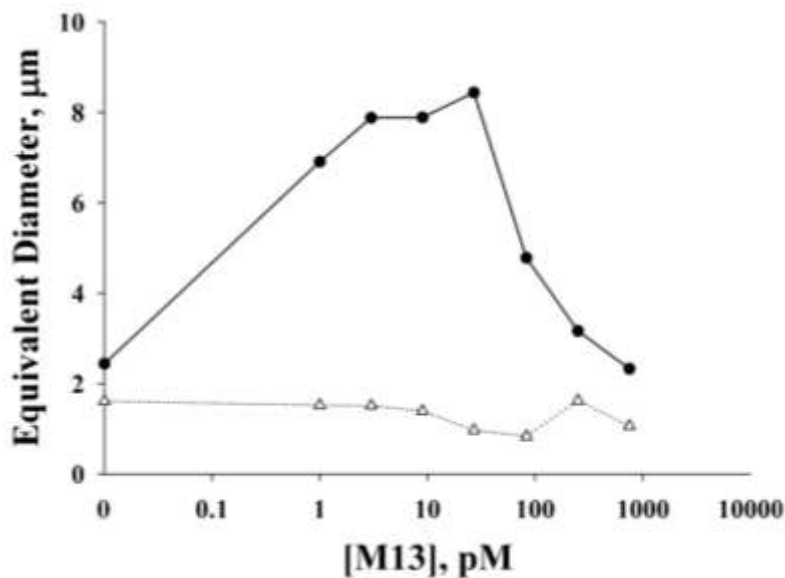


Figure S1. Neutravidin-coated polystyrene particles ($1\mu\text{m}$ diameter, Invitrogen P/N F8775) were surface-functionalized with αM13 antibody and reacted with the M13 target at varying concentrations. Resulting aggregated particles were imaged with phase contrast microscopy and sized using Image Pro Plus software (v7.0). Mean equivalent diameter is plotted against M13 target concentration in a log-linear format.

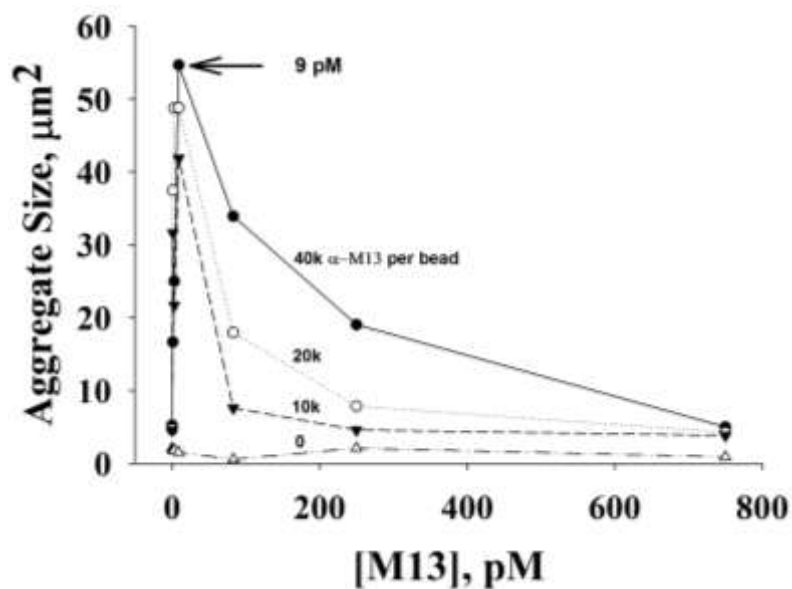


Figure S2. Neutravidin-coated polystyrene particles ($1\mu\text{m}$ diameter, Invitrogen P/N F8775) were surface-functionalized with αM13 antibody at antibody:bead ratios of 40k, 20k, 10k, and 0 and reacted with the M13 target at concentrations ranging from 750pM to 0pM . Resulting aggregated particles were sized using phase contrast microscopy. Mean aggregate area is plotted against M13 target concentration in a linear-linear format.

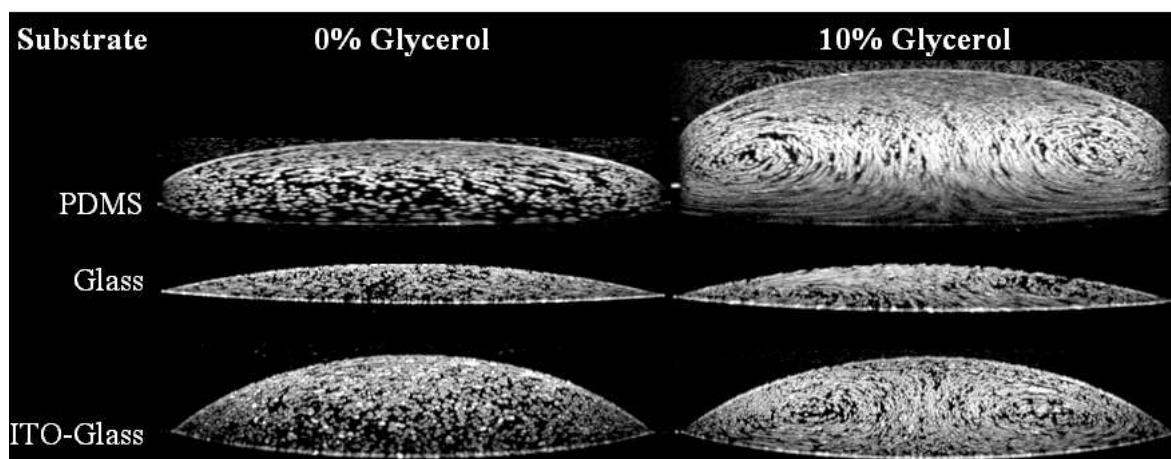


Figure S3. The effects of glycerol and substrate composition on Marangoni flow were evaluated by depositing 1 μ L drops of particle solutions containing 10^6 polystyrene particles (1 μ m diameter, carboxylated, Bangs Laboratories, Inc) on PDMS, glass, and an indium-tin oxide (ITO)-coated slide. Cross-sectional flow patterns were imaged with OCT through the diameter of the drop following a previously described protocol. Each time-lapse composite image consists of 200 consecutive OCT frames acquired at 5fps.



Figure S4. Signal generated from varying amounts of M13 target as seen through a mask that subtracts the background noise from the signal. Background noise is the amount of particles that accumulate in the center of the drop in the absence of target.