Electronic Supporting Information (ESI) for:

Electrokinetically Operated Microfluidic Devices for Integrated Immunoaffinity Monolith Extraction and Electrophoretic Separation of Preterm Birth Biomarkers

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Dot-Blot Test Protocol: First, 10 µL of analyte solution was dotted on nitrocellulose paper (see the Figure S1 caption for the amount of protein). After drying the dot, a blocking step was performed using 5% milk in 10× Tris buffer saline (TBS) for 1 h to block other sites. Then, the paper was washed thoroughly using TBS plus 0.1% Tween 20 (TBST) for 15 min. Next, 2 mL of 10 µg/mL antibody solution was added to the nitrocellulose paper, which was sealed in a plastic bag and left overnight for incubation on an electric rotor at 4 ˚C. Then, the paper was washed again using TBST for 15 min, and 2 mL of 1 µg/mL secondary antibody was added to it and incubated for 1 h. Then, the paper was washed again with TBST for 15 min. Finally, scans of dot blots were taken using a LI-COR ODYSSEY imaging system (Lincoln, NE).

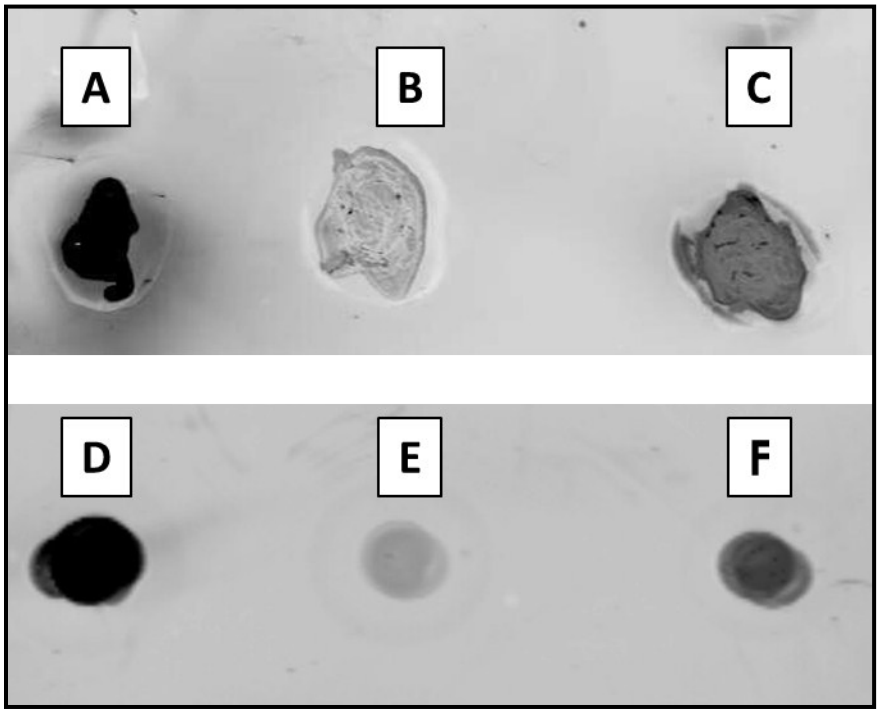

Figure S1: Dot blots. (A) LF (2 μg), (B) serum diluted 100× in TBS, and (C) serum spiked with 0.2 μg LF, all incubated with anti-LF. (D) Fer (10 μg), (E) serum diluted 100× in TBS, and (F) serum spiked with 1 μg Fer, all incubated with anti-Fer.

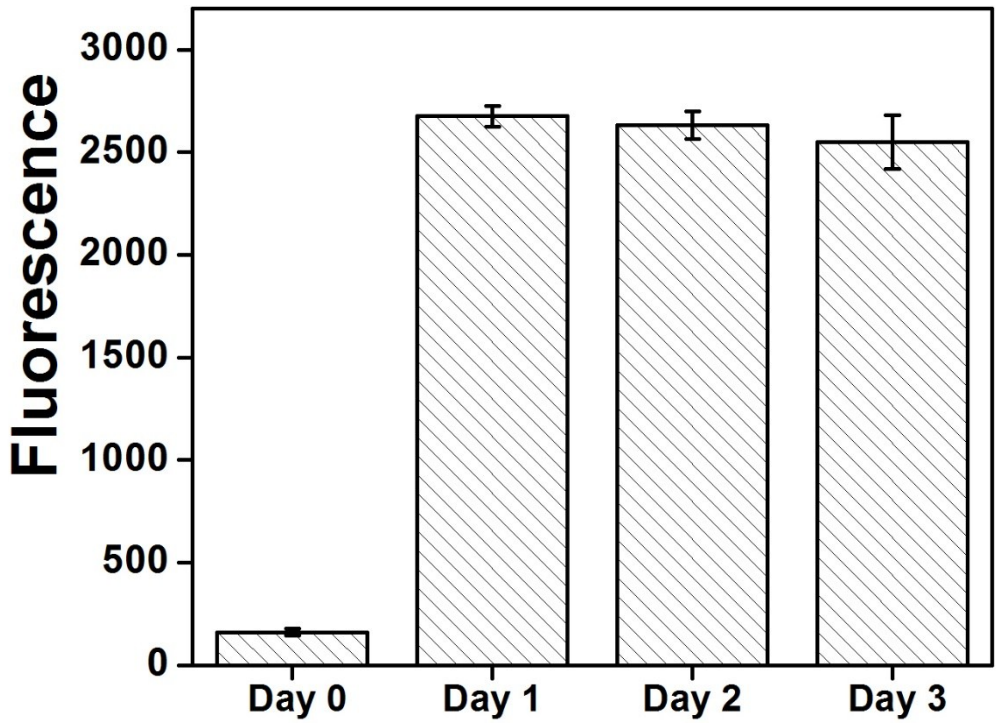

Figure S2: Effect of repeating immobilization of anti-Fer (2 mg/mL) on the same GMA-EGDMA column for three consecutive days (n=3).