

Supplementary data

Magnetically-actuated, bead-enhanced silicon photonic immunosensor

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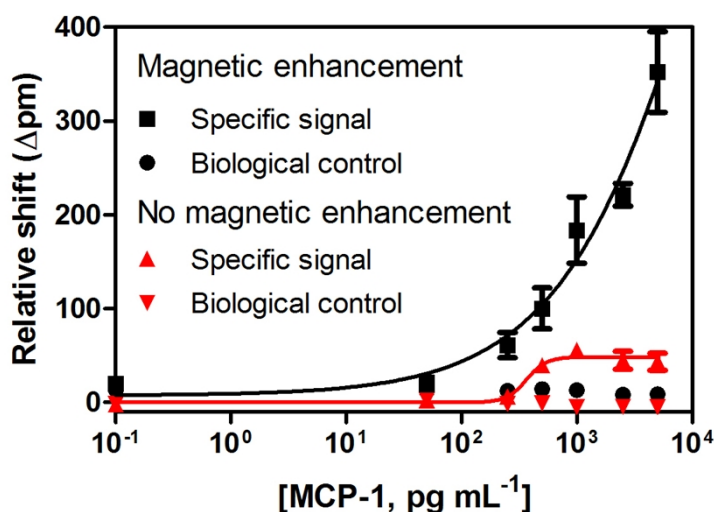


Fig. S-1. Calibration curves for the 32 min assays (with and without magnetic actuation) showing both the responses from specific (anti-MCP-1 functionalized) and biological control (isotype control antibody functionalized) microring sensors. With magnetic enhancement, a small increase in the non-specific signal is observed. This is not surprising because the magnetic actuation step brings beads into close contact with the surface, thereby giving more of an opportunity to non-specifically adhere. The fact that the background is not substantially increased, compared to the relatively large increase in specific sensor response, allows for a lower limit of detection to be achieved under conditions of magnetic bead actuation.