Supporting Information for:

Magnetic Iron Oxide Nanoparticles for Bio-recognition: Evaluation of Surface Coverage and Activity

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**TEM Images:** Transmission electron microscopy images for bare $\gamma$-Fe$_2$O$_3$ nanoparticles (A), APTES modified nanoparticles (B), and anti-mouse IgG modified nanoparticles (C) were acquired and are shown below.

![TEM Images](image)

Particles were suspended in PBS (pH 7.4) before being loaded on a TEM grid
A: bare $\gamma$-Fe$_2$O$_3$
B: APTES-modified $\gamma$-Fe$_2$O$_3$
C: $\gamma$-Fe$_2$O$_3$ immobilized with anti-mouse IgG

Particle size distributions were created from the TEM images and were invariant with surface preparation. The size distribution constructed from TEM images of bare nanoparticles is shown below.