

## The use of Differential Scanning Fluorimetry in the Rational Design of Plastic Antibodies for Protein Targets

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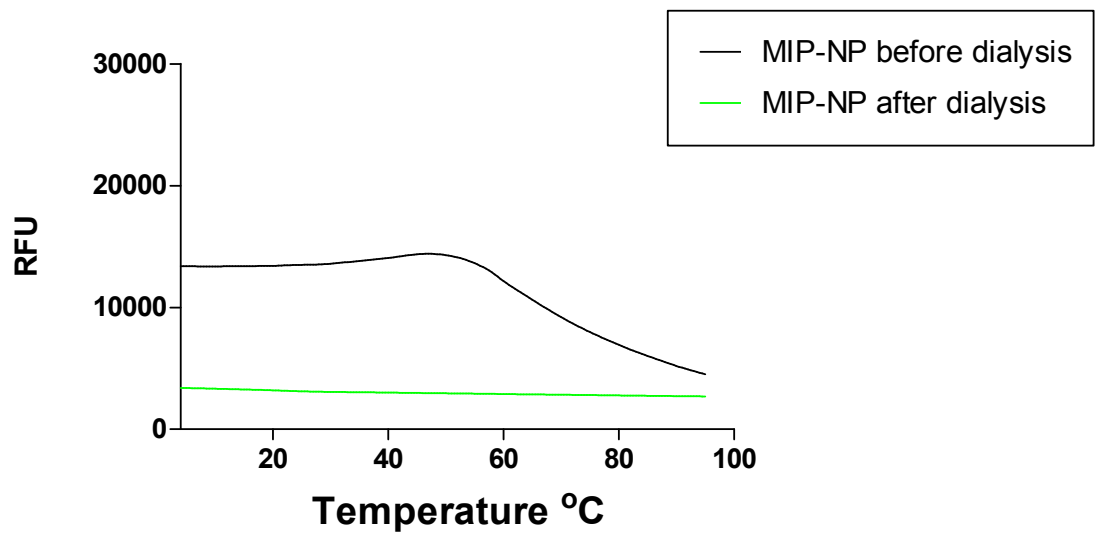
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### Supporting Information

**Determination of the apparent molarities:** Apparent Molarities by weighing freeze dried 10 ml aliquots of purified MIP-NPs and calculated using Equation S1 where  $N_A$  is Avogadro's constant,  $d$  is the hydrodynamic diameter (nm) determined from DLS,  $\rho$  is the density of the nanoparticles ( $\text{g cm}^{-3}$ ) and  $X$  is the weight concentration ( $\text{g ml}^{-1}$ ). The density of the nanoparticles is assumed to be  $0.08 \text{ g cm}^{-3}$ .

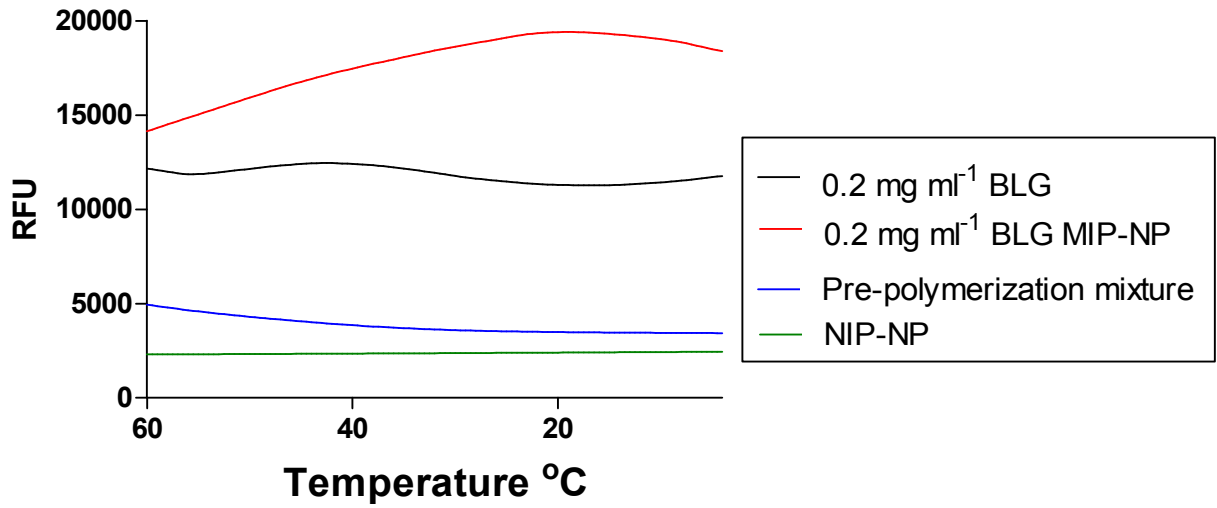
$$[\text{NPs}] = \frac{6}{\pi N_A d^3 \rho} X$$



**Figure S1.** Melting profiles of the scaled up MIP-NP synthesis mixture before and after dialysis.



**Figure S2.** Representative TEM image of NIP-NP



**Figure S3.** Reverse cooling binding assay melting profile of the native protein, MIP-NP: protein complex, pre-polymerisation mixture and NIP-NP. The fluorescence signal was measured at - 0.5 °C increments every 30 seconds from 60 °C down to 4 °C.