The Contrasting Effects of Nanoparticle Binding on Protein Denaturation

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Supporting Information

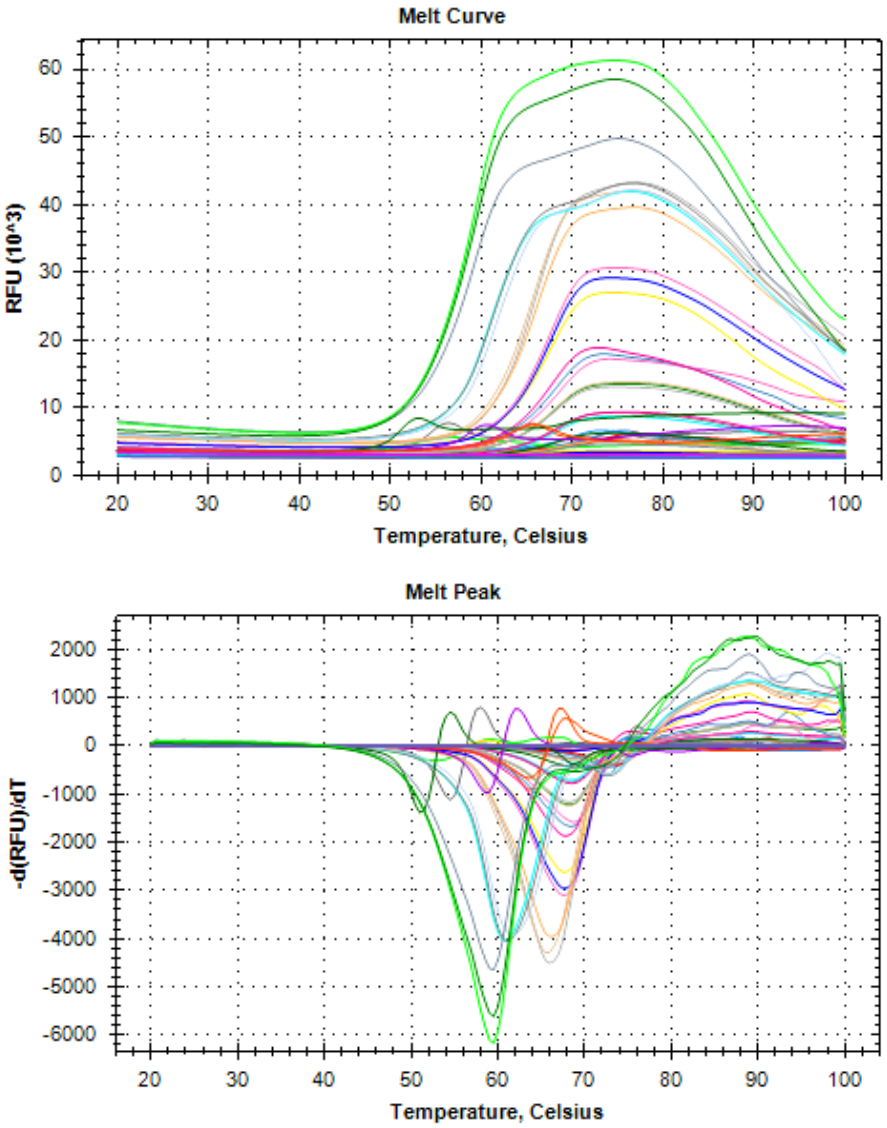

Figure S1. (Top panel) DSF melting curves of relative fluorescence unit (RFU) vs. temperature T and (lower panel) corresponding melting temperatures T_m derived from the maxima of d(RFU)/dT for fullerol-IgG of varying molar ratios.

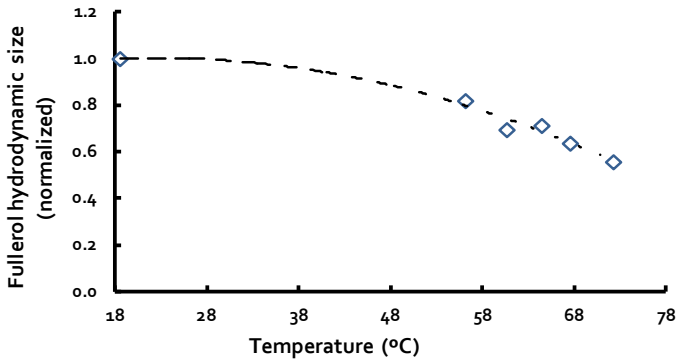

Figure S2. Calibration curve of fullerol hydrodynamic size versus temperature, normalized with respect to the reading at 18°C. Fullerol concentration in water: 1 mg/mL.

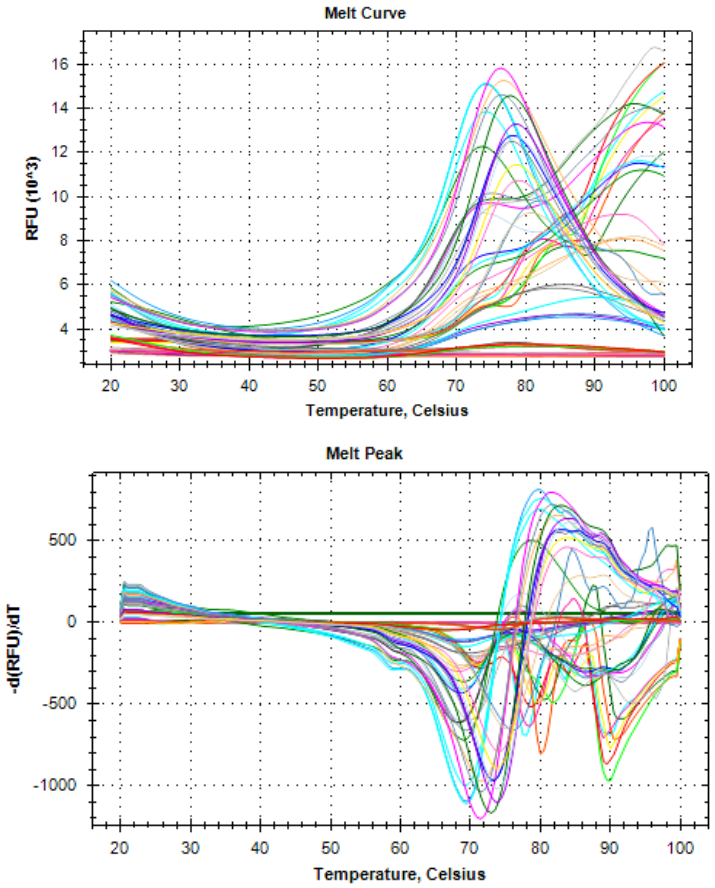

Figure S3. (Top panel) DSF melting curves and (lower panel) corresponding melting temperatures T_m for fullerol-lysozyme of varying molar ratios.

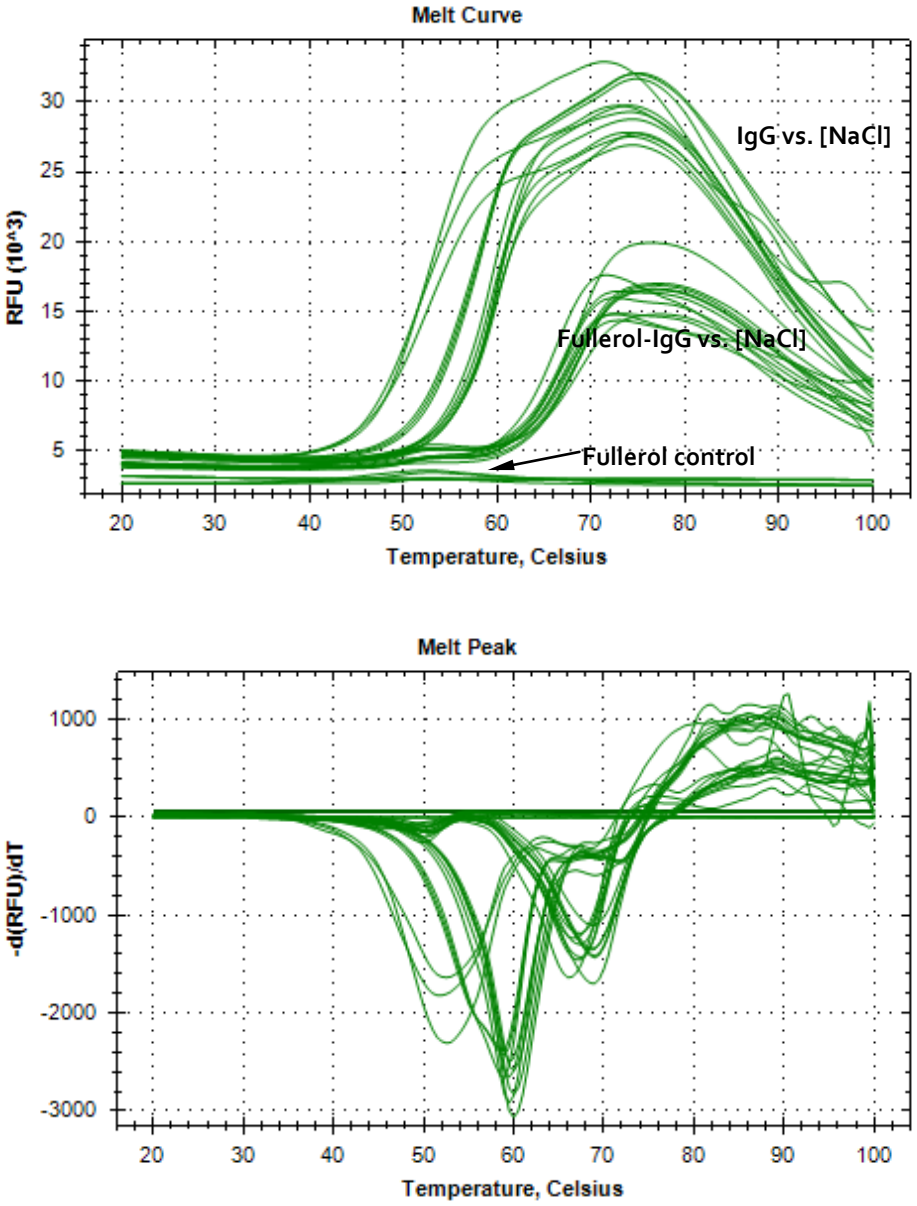

Figure S4. (Left) DSF melting curves and (right) melting temperatures T_m for fullerol-IgG at a fixed molar ratio of 3:1 at different salt strengths (NaCl of 67.5~453.0 mM). The fluorescence emission by the fullerol control (1 mg/mL) is negligible (curve indicated by arrow). The final plot of melting temperature vs. salt strength for fullerol-IgG is shown in Fig. 2 (top panel).

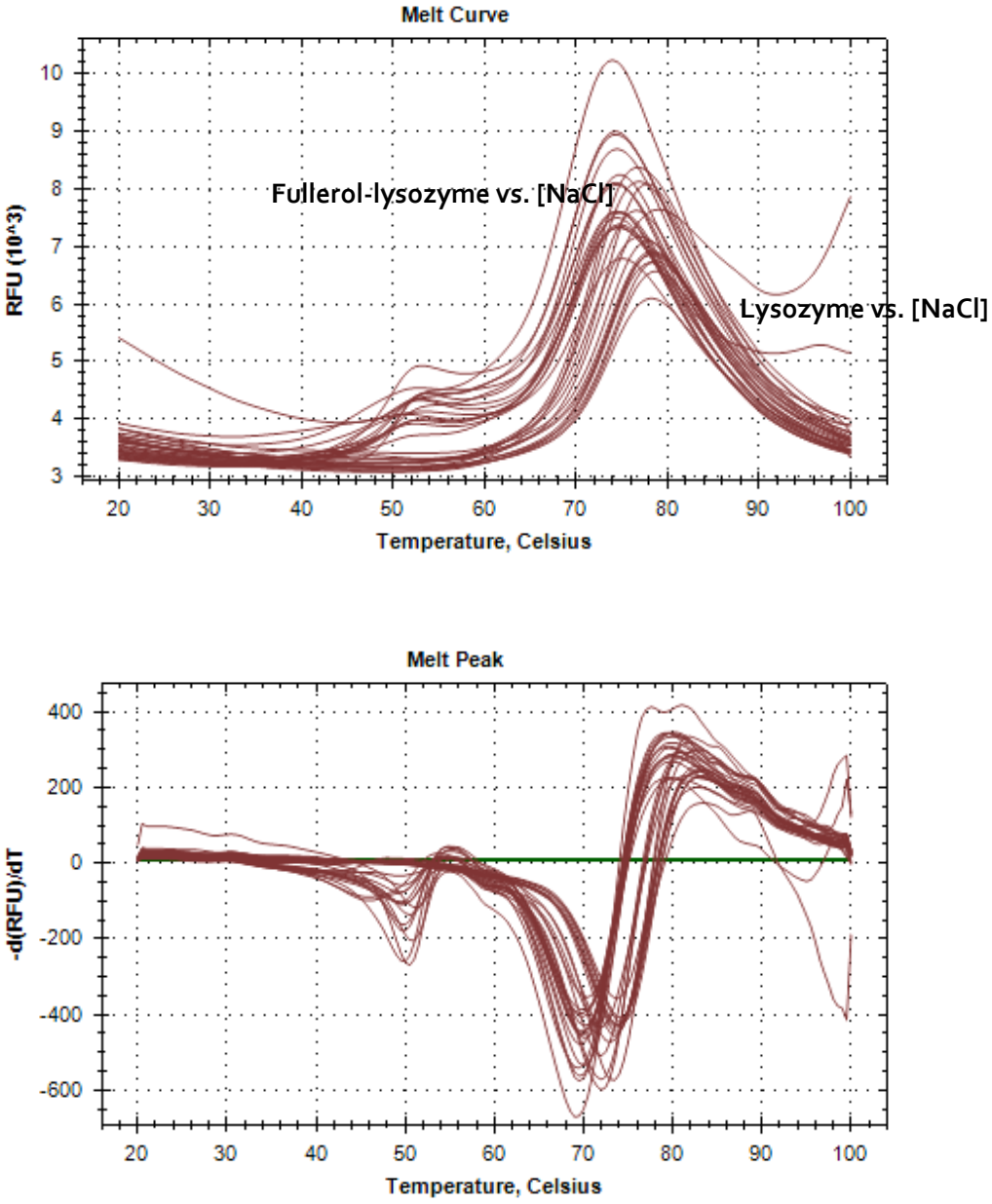

Figure S5. (Left) DSF melting curves and (right) melting temperatures T_m for fullerol-lysozyme at a fixed molar ratio of 3:1 at different salt strengths (NaCl of 0~385.0 mM). The final plot of melting temperature vs. salt strength for fullerol-lysozyme is shown in Fig. 2 (lower panel).

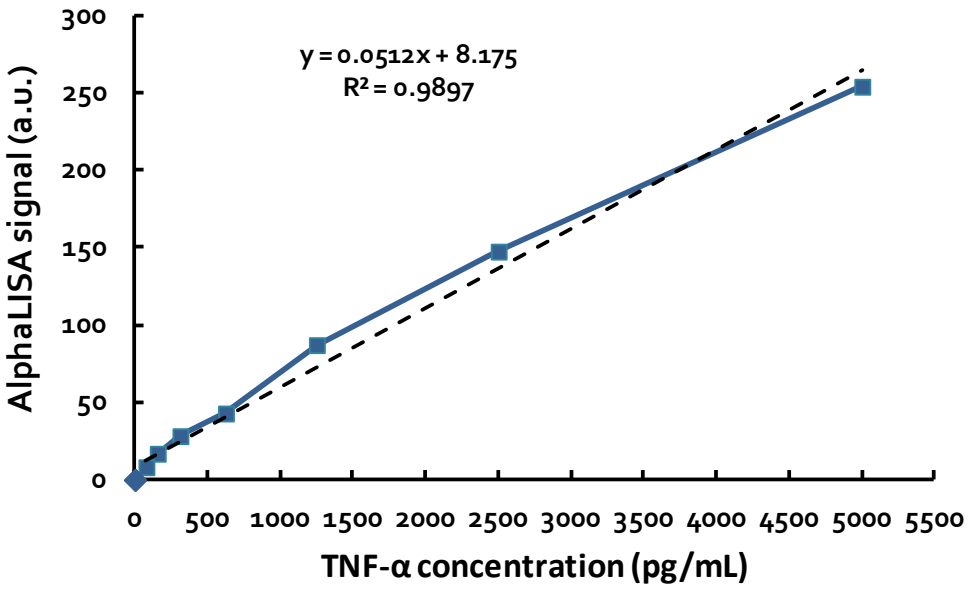

Figure S6. Calibration curve of AlphaLISA signal vs. TNF-α concentration. The measured fluorescence signal and the TNF-α cytokine concentration display a good linear correspondence (R^2=0.9897).