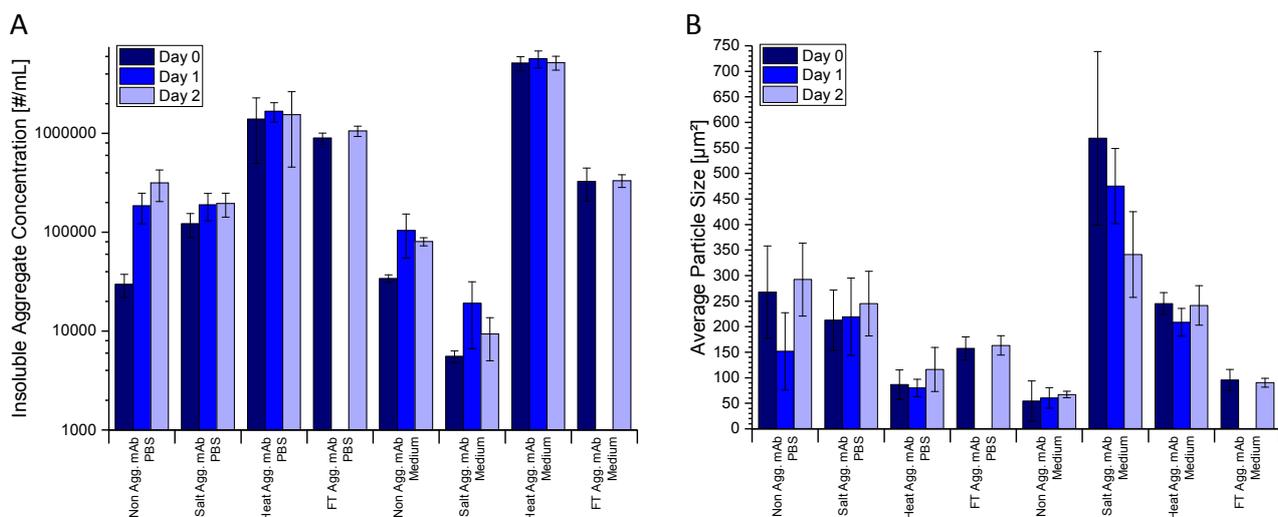
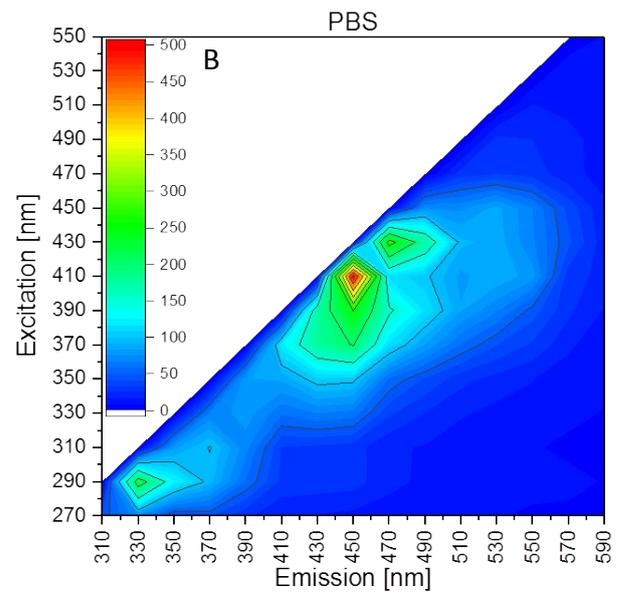
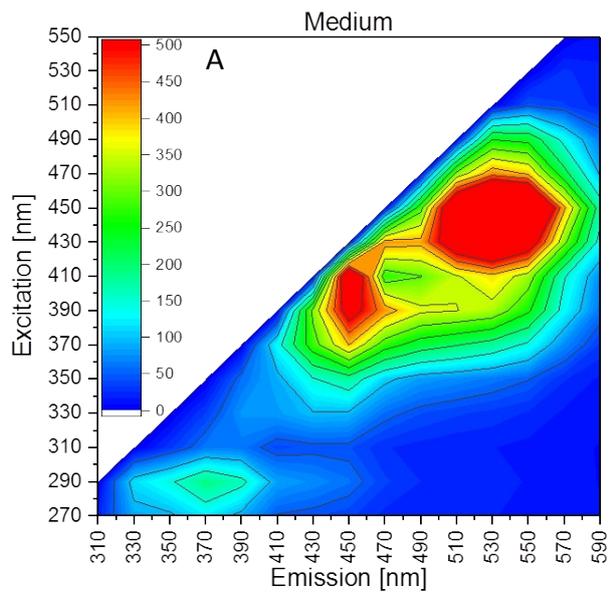


## Supplementary information



Supplement Figure 1. Non-, salt-, heat-, and freeze-thawed (FT) aggregated mAb in PBS or SFM were analyzed on day 0-2. The concentration (A) and the average size (B) of insoluble aggregates were identified by fluorescence microscopic imaging by staining the hydrophobic groups of the unfolded/denatured proteins with 10  $\mu\text{M}$  Bis-ANS.



Supplement Figure 2: 2D fluorescence spectra of SFM (A) and PBS (B) used for the background subtraction of the differently aggregated mAb1 samples in the solvent matrices, respectively.