Article

Effective Multivalent Oriented Presentation of Meningococcal NadA Antigen Trimers by Self-Assembling Ferritin Nanoparticles

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Supplementary Materials

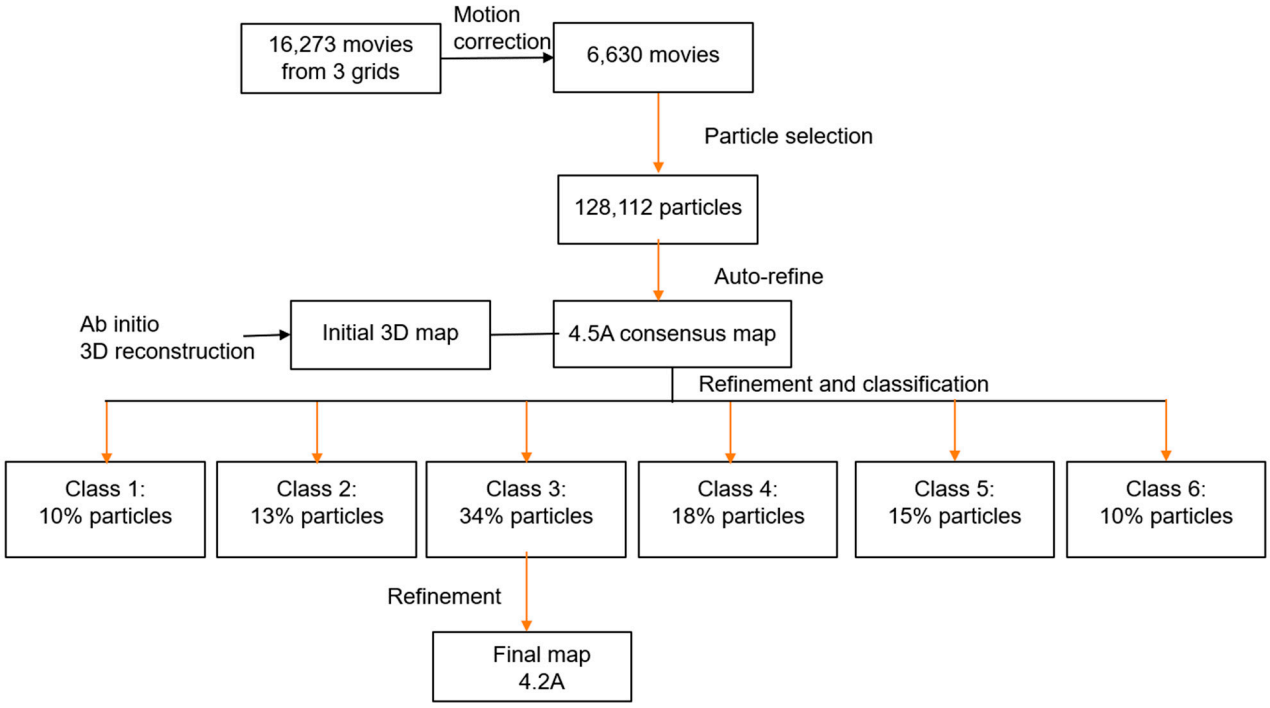


Figure S1. Flowchart for cryo-EM data processing of the NadA_Sht-Fe. Overview of all steps and blocks from the corresponding processing generated by running Relion 3.0 (Zivanov J 2018). All steps are automated.

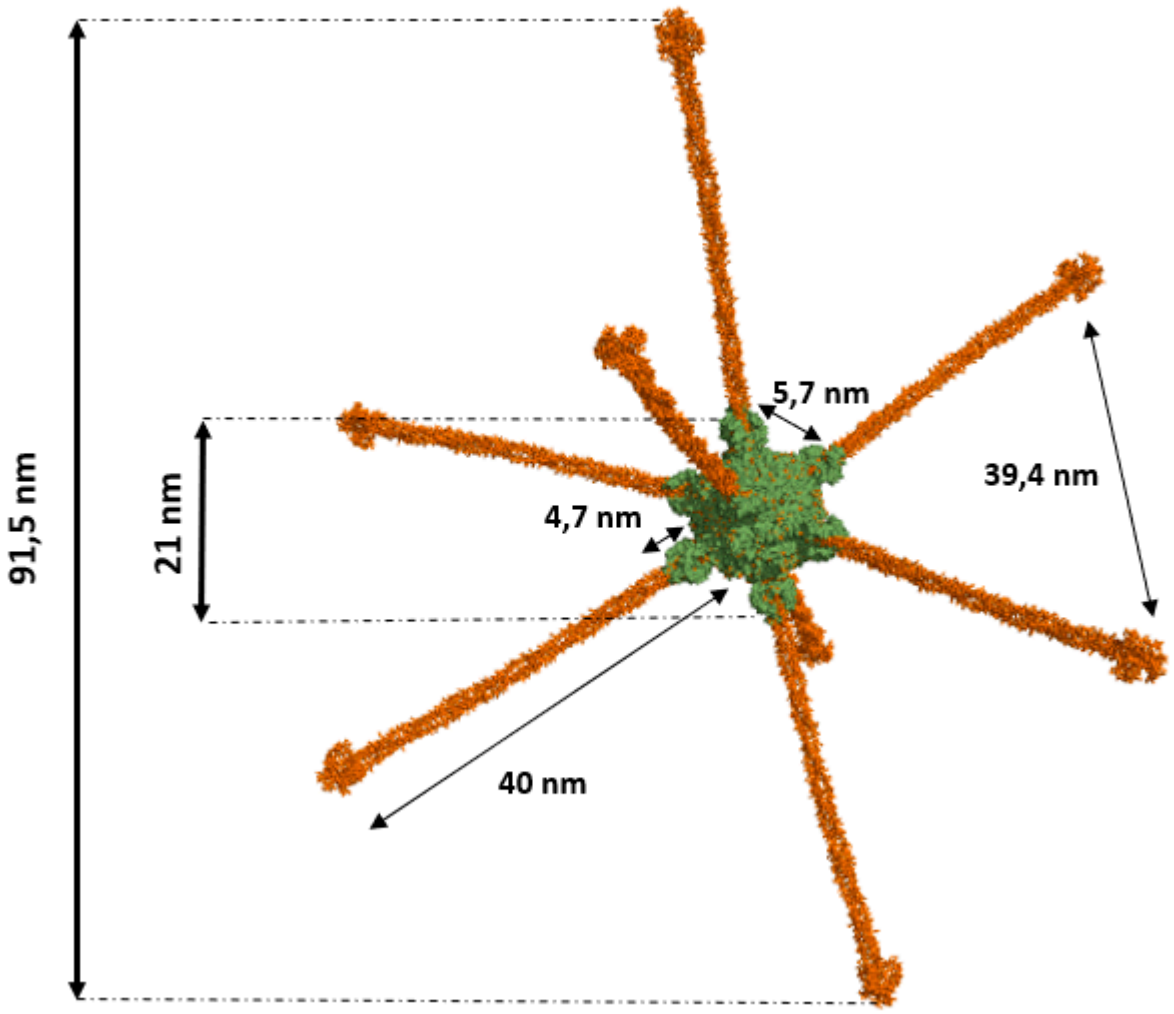


Figure S2. Superimposed computer models of NadA_Sht-Fe (green) and NadA_Ext-Fe (brown). X-ray coordinates of *Helicobacter pylori* ferritin (PDB code 3EGM) were joined at the N-terminus with NadA 24-89 or NadA 24-345, preceded by the SGGAGS linker. NadA coordinates were derived from the PDB entry 6EUN, except for the region 170-235 that was modelled ex novo as a trimeric coiled coil helix.

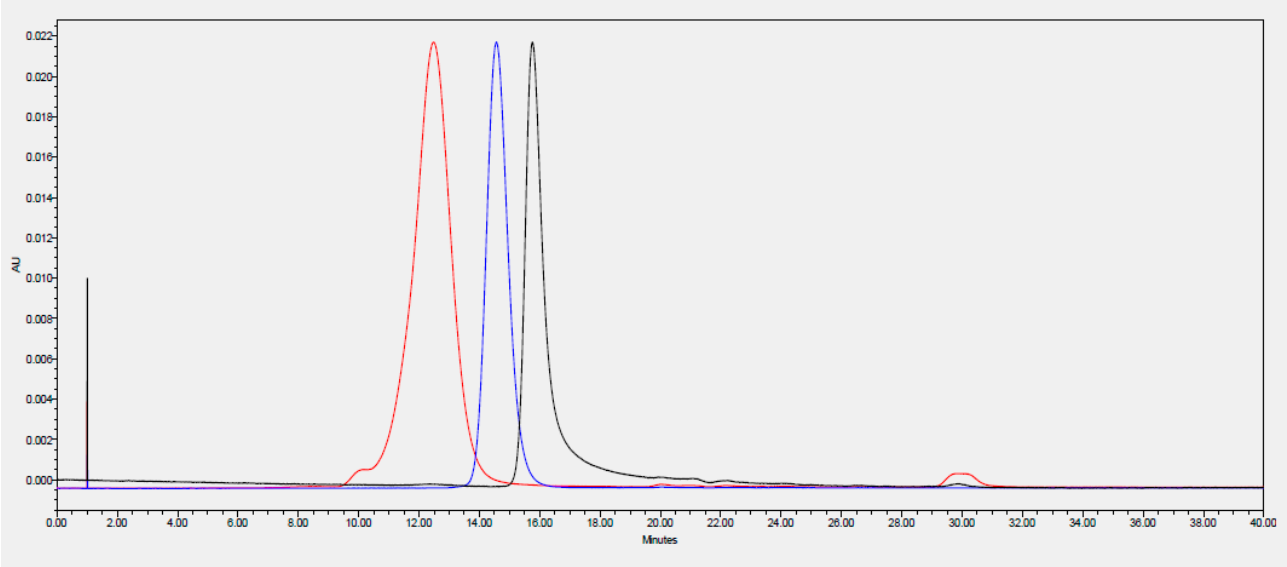


Figure S3. Size Exclusion chromatography profile of different NadA-ferritin and ferritin-alone nanoparticles. NadA_Ext-Fe (red), NadA_Sht-Fe (blue), and ferritin (black).

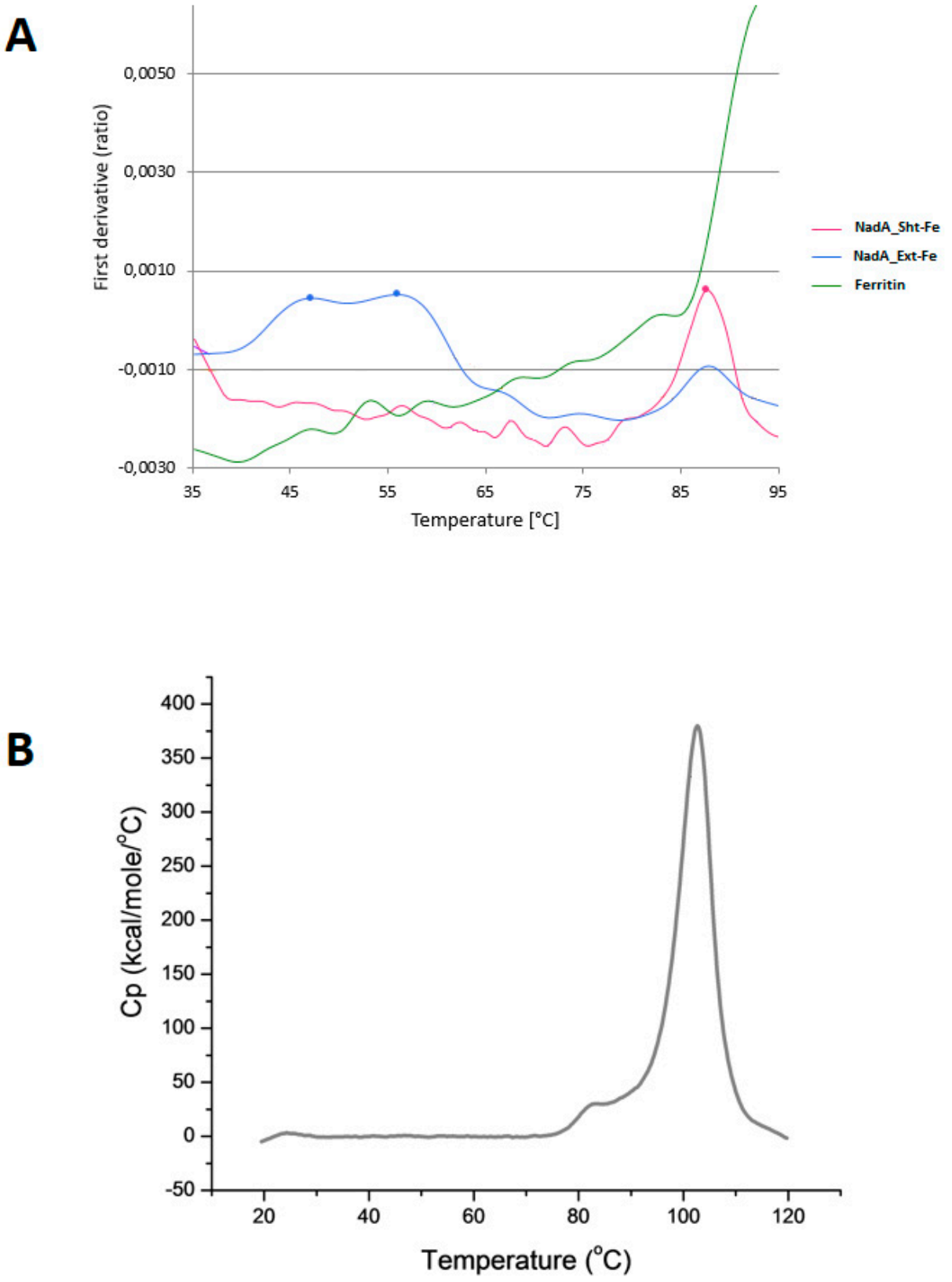


Figure S4. Thermostabilty of NadA_Sht-Fe and NadA_Ext-Fe constructs. (**A**) = DSF profiles (**B**) = DSC thermogram of uncoupled ferritin.