Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

SUPPORTING INFORMATION

Lysine residues control conformational dynamics of beta 2-glycoprotein I

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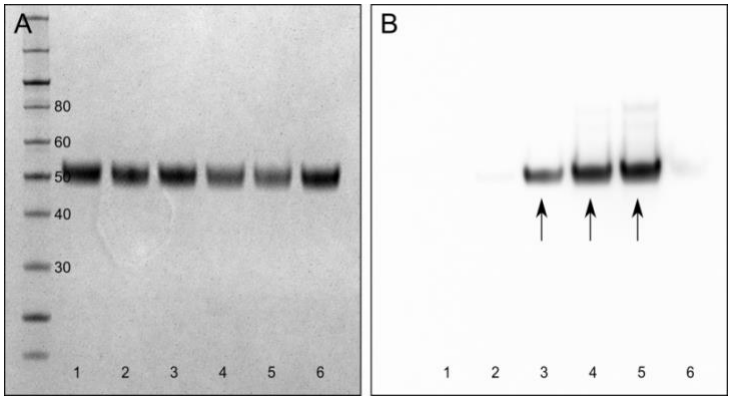

Figure S1: A) Reductive SDS-PAGE of beta2GPI after acetylation with different molar ratios of NHS-Ac to lysine residues. Lane 1 to 5 refer to dimethylformamide (DMF) treatment, as well as ratios of 1, 10, 100, and 1,000 NHS-Ac/lysine (mol/mol), respectively. Lane 6 describes the untreated beta2GPI. On the very left side a protein molecular weight standard is shown. B) Corresponding anti-acetylated lysine antibody Western blot of beta2GPI after acetylation at different NHS-Ac/lysine ratios. Lanes are the same as described in B. The bands corresponding to acetylated lysine residues of beta2GPI are highlighted by arrows.

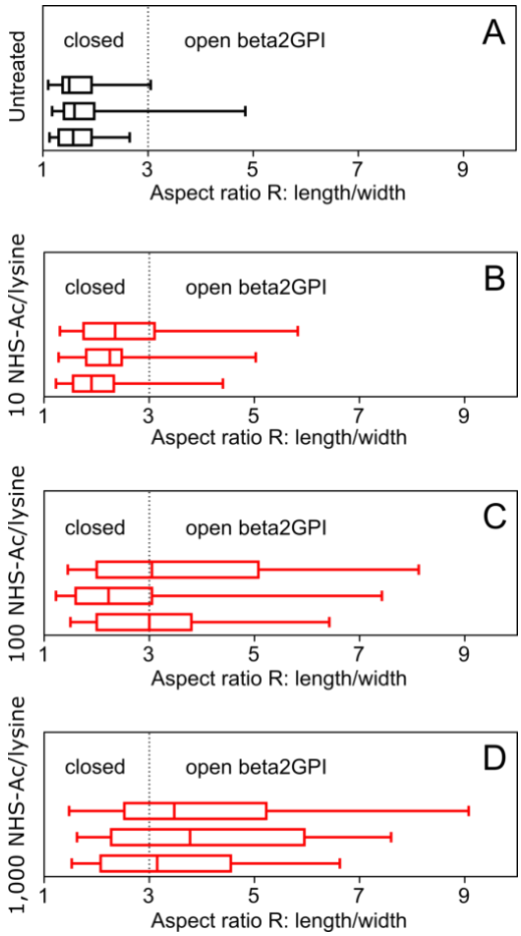

Figure S2: Quantitative shape analysis of flatly adsorbed beta2GPI after AFM imaging is shown as the aspect ratio R (particle length/width). Each box plot represents one independently prepared sample counting approximately 100 single beta2GPI molecules. (A) Untreated beta2GPI. (B-D) Beta2GPI after treatment with ratios of 10, 100 and 1,000 NHS-Ac/lysine (mol/mol), respectively. The threshold value to distinguish open from close beta2GPI amounts R = 3. Box plots show the median of R. Quantiles are set to 25 and 75 %, whereas whiskers cover quantiles of 5 to 95 % of the population.