

Electronic Supplementary Information

Gold patterned biochips for on chip immuno-MALDI-TOF MS: SPR imaging coupled multi-protein MS analysis

Young Eun Kim^{a,b}, So Yeon Yi^a, Chang-Soo Lee^{a,b}, Yongwon Jung^{*a,b} and Bong Hyun Chung^{*a,b}

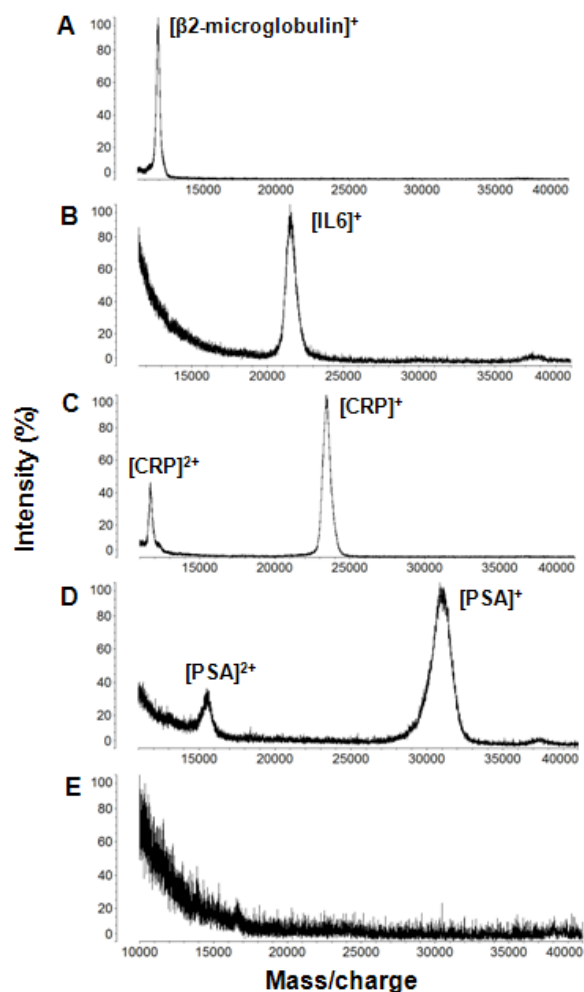


Figure S1. MALDI mass spectra of immuno-captured antigens on protein G layers from complex protein mixtures : Antibody for $\beta 2$ -microglobulin (A), IL-6 (B), CRP (C), PSA (D) or human IgG (E) was immobilized onto each gold surface (covered with protein G layer) of the biochip.

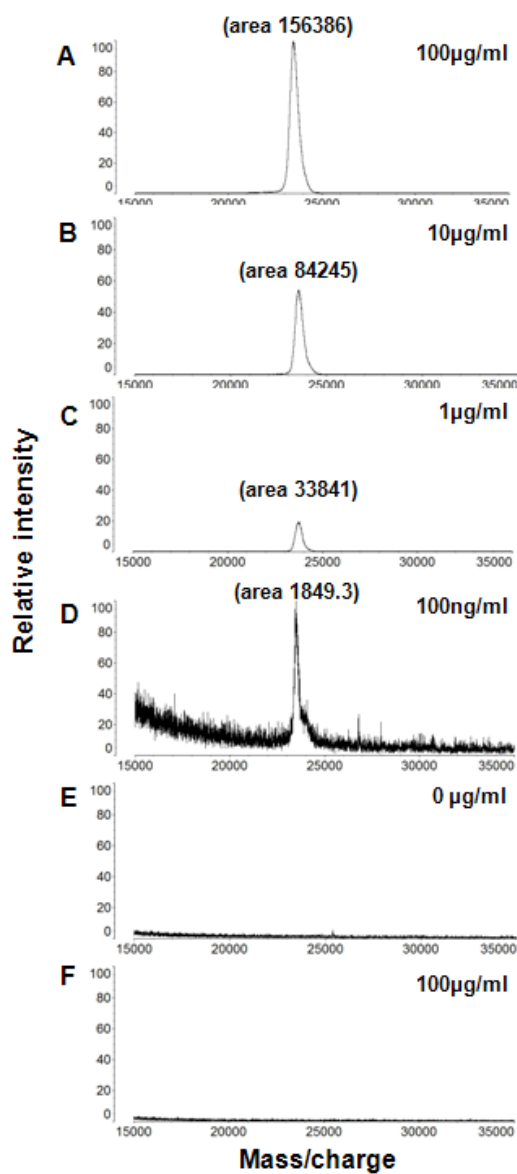


Figure S2. MALDI mass spectra of immuno-captured CRP on anti-CRP antibody (A-E) or control human IgG (F) immobilized surface. A series concentration (100 – 0.1 µg/mL) of CRP was treated on each antibody layers. Mass spectra were acquired by 100 profiles containing 10 shots.

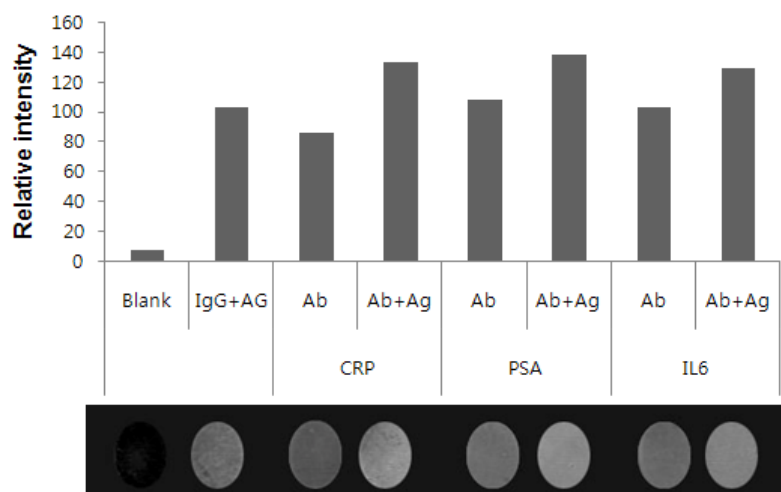


Figure S3. SPR image of antibody- antigen binding to Cys3-protein G layers of a gold patterned biochip. Control experiment was treated with only PBS. Control IgG and antibody for CRP, PSA or IL6 were immobilized to a gold surface and each antigens CRP, PSA or IL6 was bound to their corresponding antibody. Ab: antibody, Ag: antigen.

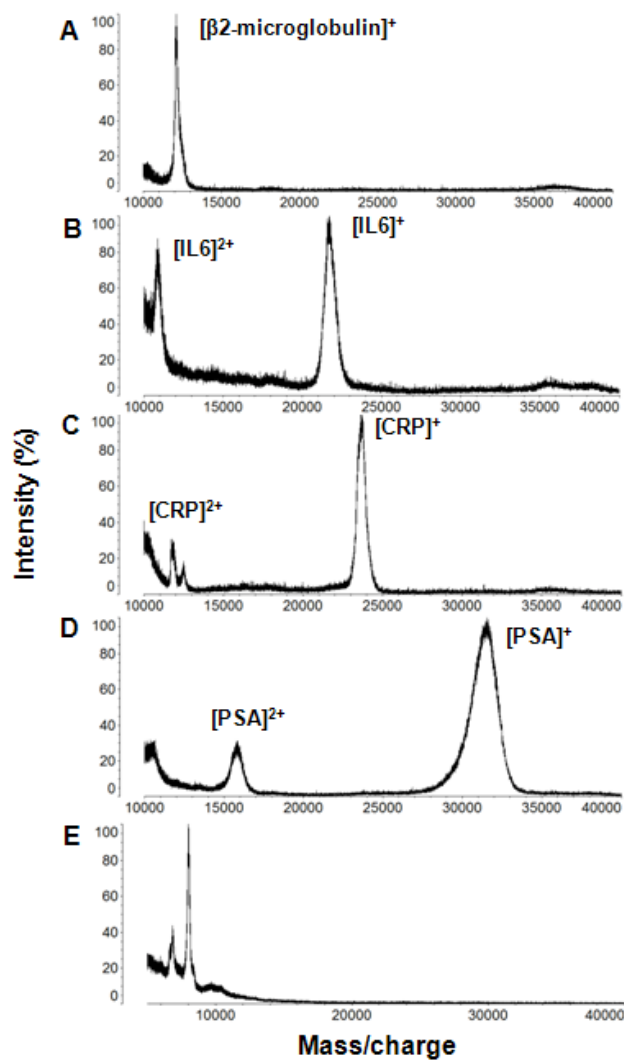


Figure S4. MALDI mass spectra of immuno-captured antigens from protein mixtures in human serum sample. : Antibody for $\beta 2$ -microglobulin (A), IL6 (B), CRP (C), PSA (D) or human IgG (E) was immobilized onto each gold surface of the biochip.