Supporting Information

Kinetic and Equilibrium Binding Analysis of Protein-Ligand Interactions at Poly(amidoamine) Dendrimer Monolayers

Mi-Young Hong, Dohoon Lee, and Hak-Sung Kim*

Department of Biological Sciences, Korea Advanced Institute of Science and Technology
373-1, Kusung-dong, Yusung-ku, Taejon 305-701, Korea

Table S1. Physicochemical characteristics of PAMAM dendrimers.

Generation	Molecular weight (Da)	Diameter (Å)	No. of surface amine groups
1	1,430	22	8
2	3,256	29	16
3	6,909	36	32
4	14,215	45	64

* Technical data supplied by Dendritech, Inc.

Figure S1. SPR sensorgrams for the interaction of SA (50 μg/ml in PBST) with biotinylated surfaces (G4, PAMAM G4 dendrimer layer; PLL, poly-L-lysine layer; 11-MUAmine SAMs) and nonspecific SA adsorption tests (PLL-NSB and 11-MUAmine SAMs-NSB) with a SA solution (50 μg/ml in PBST) pre-saturated with 1 mM biotin.

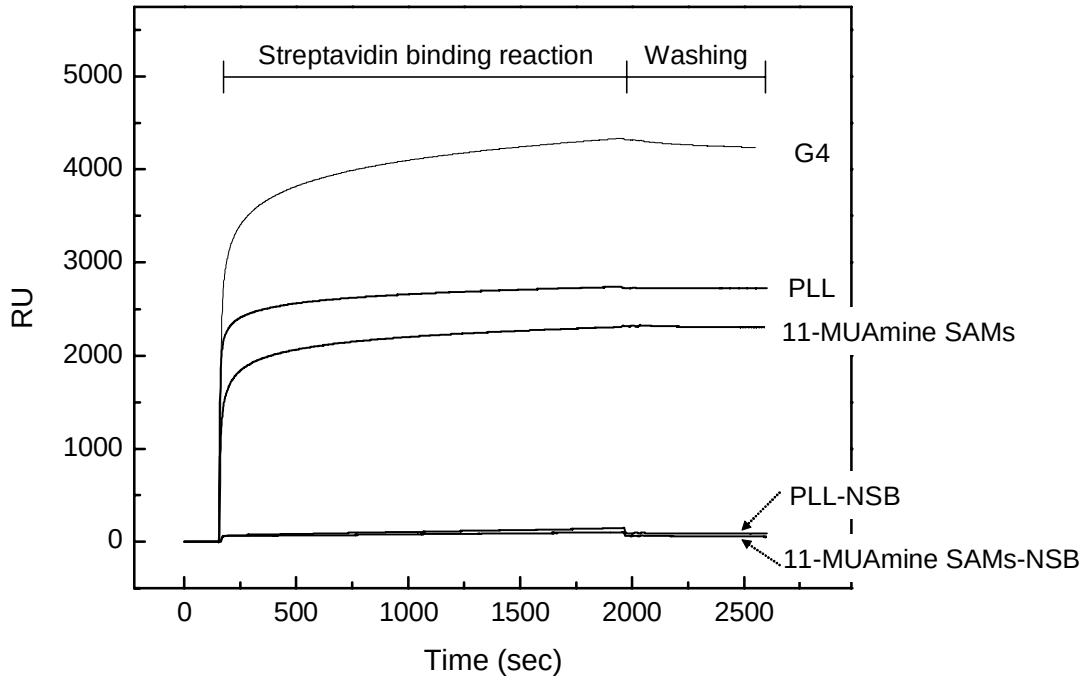

Figure S2. Variation of sticking probability as a function of surface coverage of SA: PAMAM G4 dendrimer layer (◆) and G2 dendrimer layer (★).

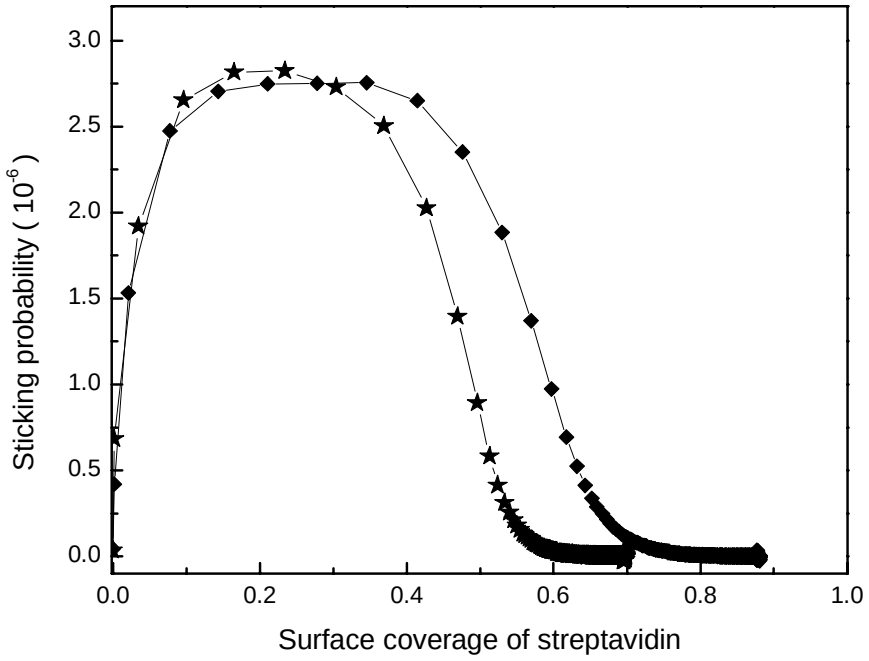

Figure S3. Double reciprocal plots of experimentally obtained surface coverage of SA as a function of a SA concentration in solution at biotinylated surfaces; PAMAM G3 dendrimer monolayer (❑), PAMAM G1 dendrimer monolayer (⊠), PLL layer (★), and 11-MUAmine SAMs (π). An inset shows a linear fit of the binding data at the G1 and G3 layers to a Langmuir isotherm model (see the Experimental section). Each set of observed protein coverages has been normalized based on a theoretical maximum protein coverage (Γ_{max} = 0.91) when a Langmuir adsorption occurs.