Supporting Information

1. SERS Enhancement Factor (EF) of 4-ABT on μAg Powders: We can estimate the SERS enhancement factor (EF) by using the following relationship, EF = (I_{SERS}/I_{NR})(N_{NR}/N_{SERS}), in which I_{SERS} and I_{NR} are the SERS intensity of 4-ABT on μAg powders and the normal Raman (NR) scattering intensity of 4-ABT in bulk, respectively, and N_{SERS} and N_{NR} are the number of 4-ABT molecules illuminated by the laser light to obtain the corresponding SERS and NR spectra, respectively. I_{SERS} and I_{NR} were measured for the 7a band of 4-ABT at 1077 cm^{-1}, and N_{SERS} and N_{NR} were calculated on the basis of the estimated concentration of surface 4-ABT species, surface roughness of the μAg powders, concentration of bulk 4-ABT, and the sampling areas. Taking the sampling area (ca. 1 μm in diameter), the sectional area of 4-ABT (~ 20 Å²), and the roughness factor of μAg particles (26.5) into account, N_{SERS} = 1.04×10^7. When taking the NR spectrum of solutions of 4-ABT, the sampling volume will be the product of the laser spot (ca. 1 μm in diameter) and the penetration depth of the focused beam (ca. 75 μm); since the concentration of 4-ABT solution used is 0.5 M, N_{NR} is then to be 1.77×10^{10}. Finally, the intensity ratio, I_{SERS}/I_{NR}, was measured to be ~64.1 so that the EF should be ~1.1×10^5.
2. NMR Spectra of PLL-g-PEG and Biotinylated-PLL-g-PEG: Integrated intensities used to estimate the grafting ratio and the percentage of biotinylation are specified in the spectra.

\[ ^1H \text{ chemical shift of PLL-g-PEG} \]

\[ ^1H \text{ chemical shift of Biotinylated-PLL-g-PEG} \]