Supporting Information

Controlled Release of Paclitaxel from Heparinized Metal Stent Fabricated by Layer-by-Layer Assembly of Polylysine and Hyaluronic Acid-g-Poly(lactic-co-glycolic acid) Micelles Encapsulating Paclitaxel

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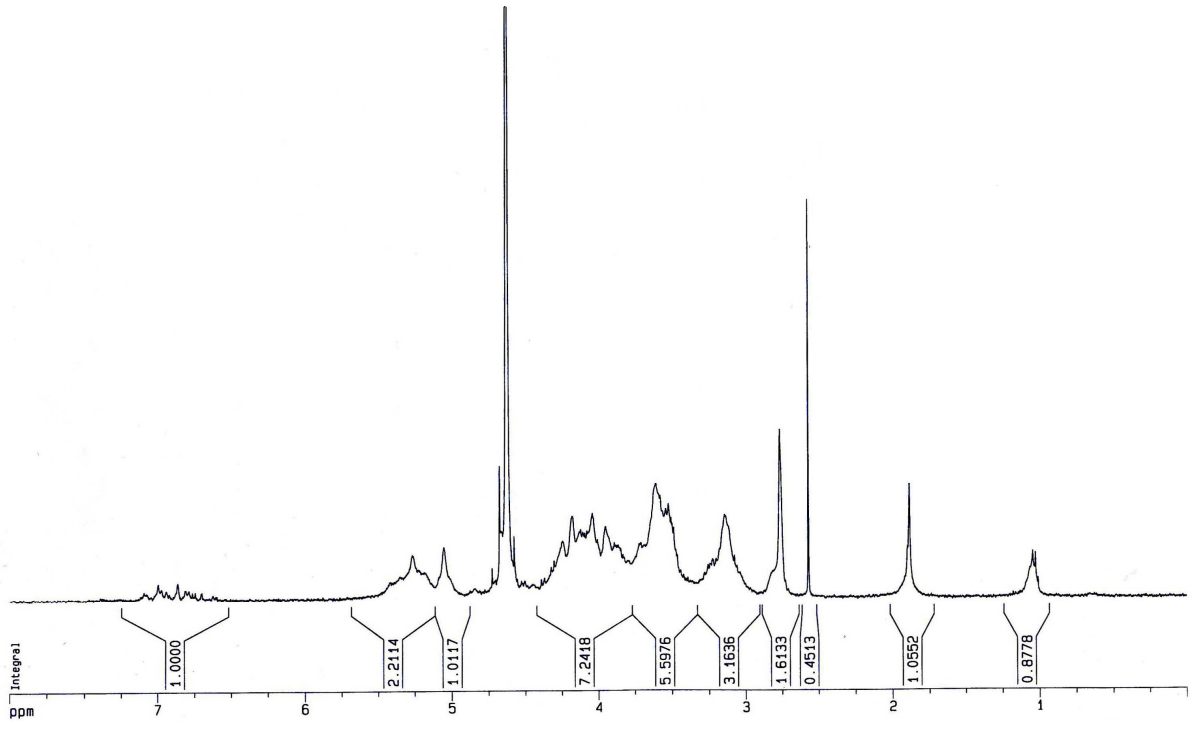

Figure S1. [1]H NMR analysis of heparin-dopamine conjugate.

Non-fouling effect of heparinized L605. Fresh human whole blood from healthy volunteers was collected in Vacutainer® Plus Plastic Citrate Tubes (BD Diagnostics, Franklin Lakes, NJ) and centrifuged at 3000 g for 10 min at 22 °C. The platelet-poor plasma (PPP) from the supernatant was mixed with phosphate-buffered saline (PBS, pH 7.4) by 1/1 volume ratio. The diluted PPP solution (0.5 ml) was poured onto the surfaces of the bare and heparinized substrate and further incubated under static condition at 37 °C for 3 h. After gently removed from the PPP, the substrates were rinsed 5 times with PBS, followed by drying under laminar flow and then vacuum dried. The adsorption of human plasma proteins on the substrates was assessed by attenuated total reflection infrared spectroscopy (ATR-FTIR, Hyperion 3000, Bruker Optiks). For each measurement, 128 interferograms at a resolution of 4 cm^{-1} were averaged over a range of 2000–1200 cm^{-1}. All spectra taken were processed by using an OPUS software package (Bruker Optiks).

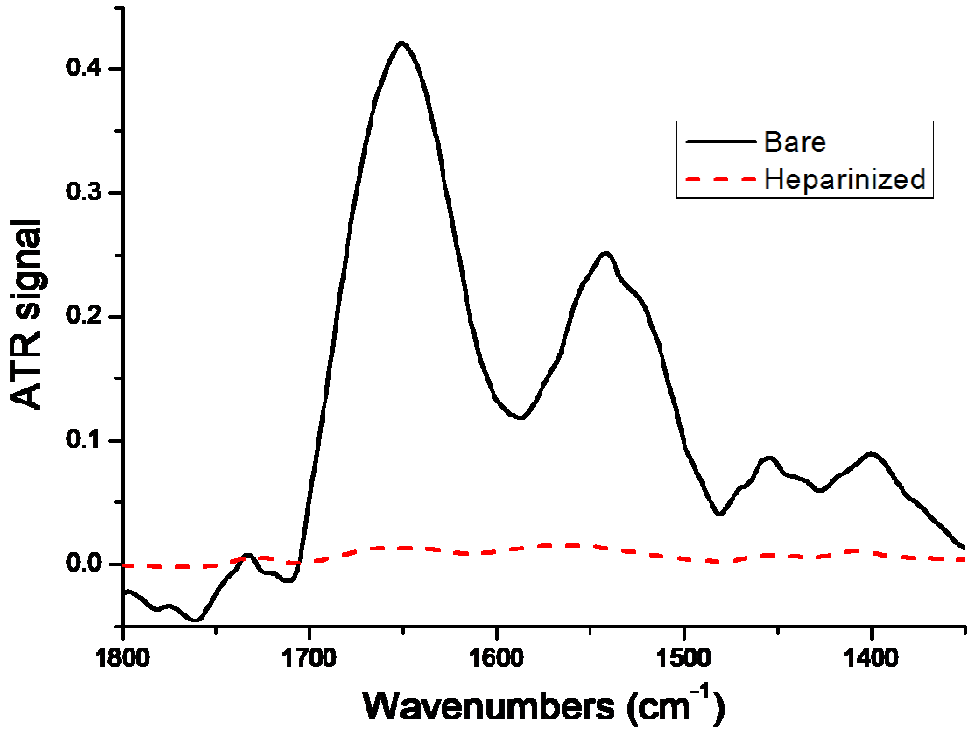

Figure S2. The resistance to human plasma protein adsorption. ATR-FTIR spectra of bare and heparinized L605 substrates after exposed to human PPP at 37 °C for 3 h. The plasma proteins adsorbed on bare surface are evident from two intensive absorption bands around 1650 cm^{-1} and 1550 cm^{-1}, which can be assigned to amide I and amide II, respectively. Negligible peak intensity was observed on Hep-DA coated substrate, indicating that formed Hep-DA surface layer could significantly suppress the plasma protein adsorption. From the comparative quantification of amide peak area, the extent of resistance of protein adsorption was about 90%.