Supporting Information for

Dynamically bonded layer-by-layer films for self-regulated insulin release

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Figure 15. GPC traces of P(PAAm-AAPBA).
Figure 25. GPC traces of PVA.

Figure 35. GPC traces of insulin-PVA conjugate.
Figure 4S. Assembly of LbL film from P(AAm-AAPBA) and EDC-treated FITC-insulin. The “assembly” process was monitored by UV-vis (A) and fluorescence (B), respectively. FITC-insulin was treated with EDC using the same conditions for the conjugation of FITC-insulin and PVA, except that PVA was absent. Assembly conditions are the same for the assembly of insulin-PVA and P(AAm-AAPBA). The unsuccessful assembly of P(AAm-AAPBA) and EDC-treated FITC-insulin rules out the possibility that the fluorescence of the films assembled in the work may be attributed to insulin multimers, which may form during the EDC catalyzed reaction.
Figure 5S. Fluorescence spectra of a phosphate buffer in which a insulin-PVA/P(AAm-AAPBA) film was soaked. The excitation wavelength is 490nm. The release time was 17, 41, 73, 111, and 135, respectively, from bottom to top. T=25°C.