Novel fluorescein polymers based nanoparticles: Facile and controllable one-pot synthesis, assembly, and immobilization of biomolecules for application of highly sensitive biosensor

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Supplementary Figure S1. NMR spectrum of the synthesized fluorescein polymers with assigned peaks.

Poly F1

[Image of NMR spectrum for Poly F1]

Poly F2

[Image of NMR spectrum for Poly F2]

Poly F3

[Image of NMR spectrum for Poly F3]
**Supplementary Figure S2.** GPC chromatogram of the synthesized fluorescein polymers.

![Supplementary Figure S2](image)
**Supplementary Figure S3.** Photographic images of the stability test for the BSA-immobilized FPNPs, left to right: FPNP1-BSA, FPNP2-BSA, and FPNP3-BSA.
**Supplementary Figure S4.** Fluorescence sensitivity for BSA detection table for the concentration ranging from 0 to 10µg/ml (Error bars represent the standard deviation of at least three repetitive experiments).

| Anti-BSA Concentration | 10µg/ml  | 1µg/ml  | 100ng/ml | 10ng/ml | 1ng/ml  | 0.1ng/ml | 0.01ng/ml | 0ng/ml  |
|-------------------------|----------|---------|----------|---------|---------|----------|-----------|---------|
| Fluorescent Intensity (a.u.) | FPNPs-BSA | 3006±486 | 2762±369 | 2268±151 | 1867±178 | 1434±60 | 1123±70 | 858±48  | 732±16  |
|                         | FITC-BSA | 665±40   | 560±24   | 545±30   | 521±17   | 517±31   | 499±23   | 469±24  | 449±6   |