Electronic supplementary information

Fluorescent Detection of the Target Protein via a Molecularly Imprinted Hydrogel

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Scheme S1. Synthesis of ANS monomer.

¹H-NMR (600 MHz, MeOD): δ/ppm 4.09 (*d*, 2H), 4.64, 4.96 (*dd*, 2H), 5.33 (*dt*, 1H), 6.96 (*t*, 1H), 7.22 (*dt*, 2H), 7.36 (*dd*, 2H), 7.61-7.94 (*complex*, 6H).



PEG-ANS monomer

EDC, 1-ethyl-3-(3-dimethylaminopropyl)-carbodiimide; DMAP, N,N-dimethyl-4-aminopyridine

Scheme S2. Synthesis of PEG-ANS monomer.

¹H-NMR (600 MHz, MeOD): δ/ppm 2.00 (*tt*, 2H), 2.18 (*s*, 3H), 2.21 (*tt*, 2H), 3.31 (*t*, 2H), 3.19 (*t*, 2H), 3.40-3.71 (*complex*, 8H), 5.35, 5.56 (*dd*, 2H), 6.05 (*dd*, 1H), 6.98 (*t*, 1H), 7.08-7.19(*complex*, 4H), 7.27-8.02 (*complex*, 6H).



<u>LC/MS condition</u> Mobile phase, water/MeOH = 5/5; interface, DUIS; mode, Q3 scan (positive)

Fig. S1. FT-IR spectra of ANS derivatives (a) and MS spectrum of ANS monomer (b).



Mobile phase, water/MeOH = 5/5; interface, DUIS; mode, Q3 scan (positive)

Fig. S2. FT-IR spectra of ANS derivatives (a) and MS spectrum of PEG-ANS monomer (b).



Fig. S3. Fluorescent intensity of BSA with different concentrations.



Fig. S4. (a) Analytical curve of BSA by HPLC, (b) Chromatograms of 0-h-old BSA and 16-h-old BSA. The analysis of each BSA sample was triplicated.