## Supporting Information

# Polyfluorene Based Bioconjugates for Selective Detection of Ferritin in Normal and Cancer Human Blood Serums 

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Figure S1: ${ }^{1} \mathrm{H}$ NMR spectra of M1.


Figure S2: ${ }^{13} \mathrm{C}$ NMR spectra of M1


Figure S3: ${ }^{1} \mathrm{H}$ NMR spectra of M2.


Figure S4: ${ }^{13} \mathrm{C}$ NMR spectra of M2.


Figure S5: ${ }^{1} \mathrm{H}$ NMR spectra of the polymer PFBT.

PFBT-A


Figure S6: ${ }^{1} \mathrm{H}-\mathrm{NMR}$ spectra of the polymer bioconjugate PFBT-A.


Figure S7: HRMS spectra of M2.


Figure S8: FT-IR spectra of the polymer bioconjugate PFBT-A.


Figure S9: PL intensity of PFBT-A $(1 \mu \mathrm{M})$ in different DMSO: HEPES mixtures. Inset: the enlarged portion of the curves from $40 \% \mathrm{H}_{2} \mathrm{O}$ to $100 \% \mathrm{H}_{2} \mathrm{O}$.


Figure S10: HOMO-LUMO hybrid structures of the polymer bioconjugate PFBT-A. Theoritical Band Gap $=2.426 \mathrm{eV}$


Figure S11: Cyclic voltammogram of PFBT-A film recorded on glassy carbon electrode with a scan rate of $50 \mathrm{mV} \mathrm{s}^{-1}$. The inset corresponds to the cyclic voltammogram of ferrocene.


Figure S12: Selectivity study of PFBT-A ( $1 \mu \mathrm{M}$ ) in different amino acids $(1 \mu \mathrm{M})$. [Gly=glycine, Tyr=tyrosine, Leu=leucine, Ile=isoleucine, Lys=lysine, Val=valine, Ser=serine, Cys=cysteine, Ala=alanine, $\quad$ Trp=trptophan, $\quad$ Phe=phenylalanine, Met=methionine, Thr=threonine, Gln=glutamine, $\mathrm{Arg}=$ arginine].


Figure S13: PL detection limit plots of PFBT-A.


Figure S14: Pictures of the serum samples taken for study.


Figure S15: PL quenching of PFBT-A in presence of normal and cancer blood serums.

