

Electronic Supplementary Information

PEGylated Conjugated Polyelectrolytes Containing 2,1,3-Benzoxadiazole Units for Targeted Cell Imaging

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Table of Contents

Calculation of CPE concentration.

Fig. S1 Hydrodynamic radius distribution of PFBD-PEG₂₀₀₀-RGD NPs in water.

Fig. S2 UV-vis and PL spectra of PFBD-PEG₂₀₀₀-RGD in water.

Fig. S3 3D CLSM images of HT-29 colon cancer cells after incubation with PFBD-PEG₂₀₀₀-COOH NPs (A) and PFBD-PEG₂₀₀₀-RGD NPs (B) at 37 °C for 2 h. The NP concentration is 0.25 μM based on repeat unit.

Calculation of CPE concentration. The CPE concentration is calculated based on the average molecular weight of repeat unit. As the PEG chains are randomly attached to the conjugated backbone, one repeat unit contains one fluorene moiety, one 2,1,3-benzoxadiazole moiety and relevant content of PEG chains. The average molecular weight of repeat unit (M_{RU}) can be calculated from the following equation:

$$M_{RU} = M_F + M_{BD} + 2 \times M_{PEG} \times GE_{PEG}$$

Where, M_F , M_{BD} and M_{PEG} are the molecular weight of fluorene moiety, 2,1,3-benzoxadiazole moiety and PEG chains, respectively. GE_{PEG} denotes the PEG-graft efficiency. M_{RU} s are calculated to be 1528 and 3652 g/mol for PFBD-PEG₆₀₀-COOH and PFBD-PEG₂₀₀₀-COOH, respectively.

According to the average molecular weight of repeat unit, the concentration of CPEs can be calculated from the following equation:

$$[CPE] = m / (V \times M_{RU})$$

Where, the [CPE] is the concentration of CPEs, m is the amount of CPEs, and V is the volume the solution.

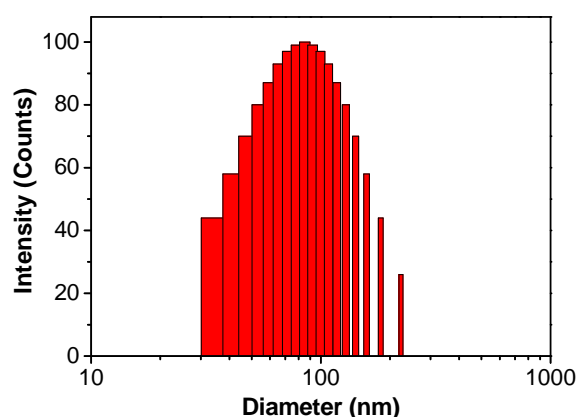


Figure S1. Hydrodynamic radius distribution of PFBD-PEG₂₀₀₀-RGD NPs in water.

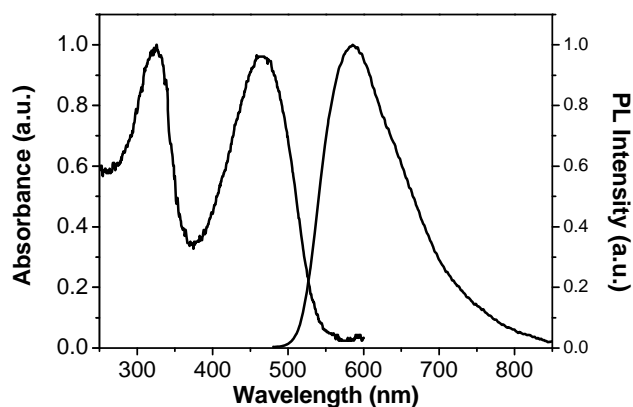


Figure S2. UV-vis and PL spectra of PFBD-PEG₂₀₀₀-RGD in water.

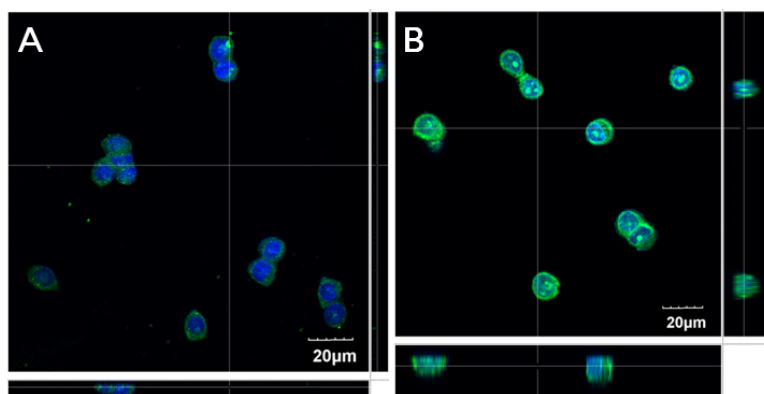


Figure S3. 3D CLSM images of HT-29 colon cancer cells after incubation with PFBD-PEG₂₀₀₀-COOH NPs (A) and PFBD-PEG₂₀₀₀-RGD NPs (B) at 37 °C for 2 h. The NP concentration is 0.25 μM based on repeat unit.