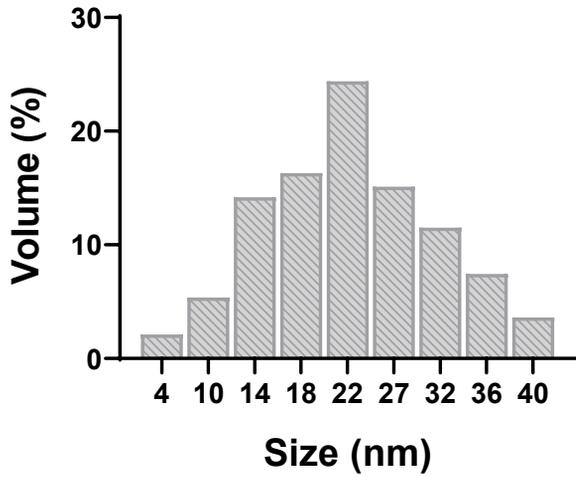
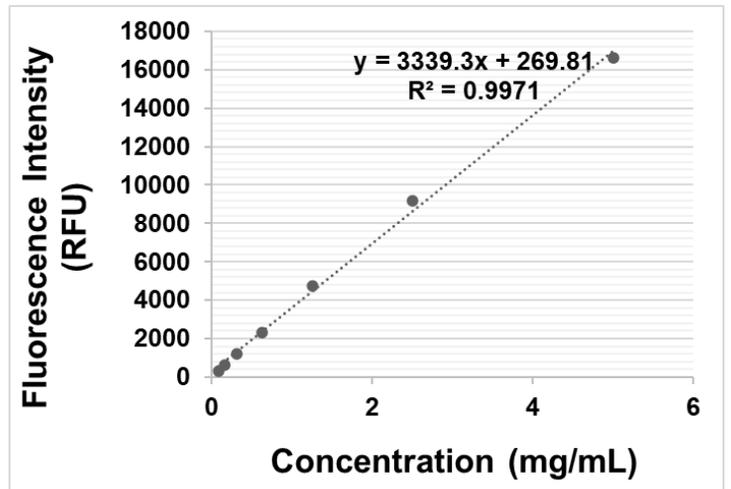


A**B**

Supplementary Fig. S1. Characterization of the PFMs20 nanoparticle batch. (A) Particle size distribution provided by the manufacturer (Jiangsu Zhichuan Technology). (B) Quantitative fluorescence analysis of serially diluted PFMs20 in PBS, measured using a Spark multimode microplate reader (Ex/Em=480/530 nm). The plot shows a linear relationship between fluorescence intensity and relative concentration ($R^2 > 0.99$), defining the reliable working range for experimental use.