## Supplementary Materials: Self-Assembled Nanostructures of Red Fluorescent Amphiphilic Block Copolymers as Both Imaging Probes and Drug Carriers

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Figure S1. (a) <sup>1</sup>H-NMR (300 MHz, CDCl<sub>3</sub>) spectra of homopolymer R-PCL and (b) R-PDL.



**Figure S2.** (**a**) <sup>1</sup>H-NMR (300 MHz, CDCl<sub>3</sub>) spectra of amphiphilic block copolymer RPO-1; (**b**) RPO-2 and (**c**) RPO-3.



**Figure S3.** (a) GPC traces of RPO-1; (b) RPO-2 and (c) RPO-3. The shift of the UV traces (red) relative to the refractive index (RI) traces (black) is due to the fact that the eluent flows through the UV-VIS detector first, followed by the RI detector.



**Figure S4.** A representative high-magnification TEM image of RPO-1 micellar structures prepared by Method 1.



**Figure S5.** A representative high-magnification TEM image of RPO-1 micellar structures prepared by Method 3.



**Figure S6.** A representative high-magnification TEM image of RPO-1 self-assemblies prepared by Method 4.



**Figure S7.** A representative high-magnification TEM image of RPO-2 self-assemblies prepared by Method 4.



**Figure S8.** Representative low-magnification (**a**) and high-magnification (**b**) TEM images of RPO-3 self-assemblies prepared by Method 4. Image (**a**) shows the presence of both worm-like micelles (circled by red lines) and large-compound micelles (labeled by red arrows). Image (**b**) highlights the detailed structure of a large compound micelle from image (**a**).



**Figure S9.** Fluorescence images of HeLa cells after being incubated with blank RPO-3 micelles over 2 h. The fluorescence of DAPI ( $\lambda_{ex}$  = 405 nm) and RPO-3 ( $\lambda_{ex}$  = 488 nm,  $\lambda_{em}$  = 600-700 nm) was pseudo labeled with blue (**a**) and red (**b**), respectively. Image (**c**) is merged from image (**a**) and (**b**).