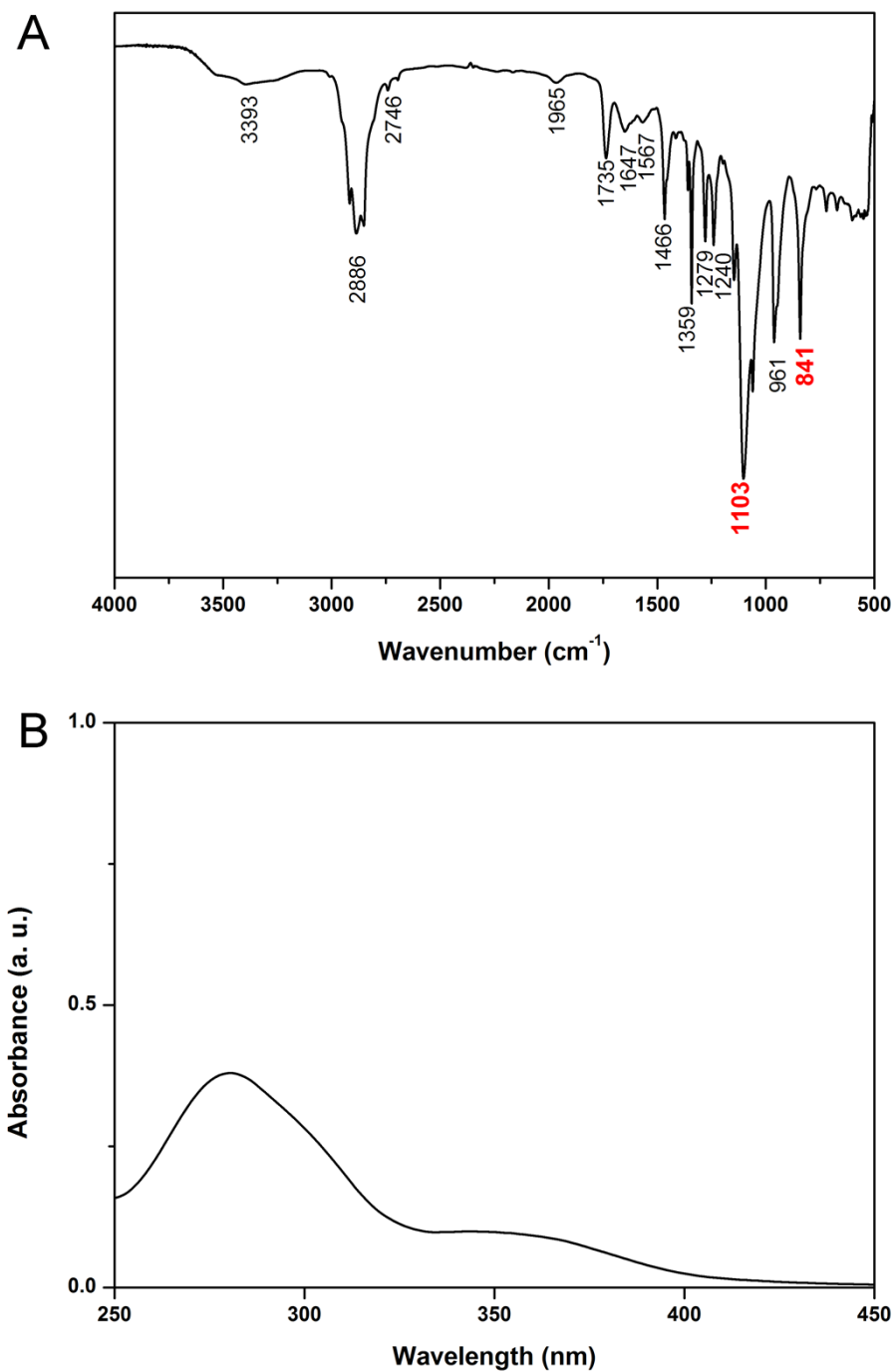


## Supporting Information



**Supplementary Figure S1.** (A) FTIR spectra and (B) UV-vis absorption spectra of the drug-free FA-micelles.

As shown in FTIR spectra (Figure S1A), the peak at  $1,103\text{ cm}^{-1}$  in the drug-free FA-micelles indicated the C-O-C stretching vibration native to the structure of PEG. The peak at  $842\text{ cm}^{-1}$  in the drug-free FA-micelles was possibly assigned to C-H out-plane bending for the aromatic rings native to the structure of FA. Additionally, as seen in UV-vis spectrum of the drug-free FA-micelles (Figure S1B), a profound absorption peak around 280 nm was observed native to the aromatic ring structure of FA. Thus, in terms of the drug-free FA-micelles, these results testified to the presence of PEG and FA.

**Table 1.** Particle size, zeta potential, and drug loading content of the MMC/HCPT loaded micelles and MMC/HCPT loaded FA-micelles in water determined by DLS. Error bars indicated S.D. (n=6).

|                                 | Particle Size<br>(nm) | Zeta<br>Potential<br>(mV) | MMC drug<br>loading content<br>(%) | HCPT drug<br>loading content<br>(%) |
|---------------------------------|-----------------------|---------------------------|------------------------------------|-------------------------------------|
| MMC/HCPT loaded<br>micelles     | 39.2±3.1              | -38.6±3.5                 | 7.7±0.9                            | 3.7±0.3                             |
| MMC/HCPT loaded FA-<br>micelles | 43.3±2.6              | -34.7±2.9                 | 7.4±0.7                            | 3.6±0.5                             |

**Table 2.** Pharmacokinetic parameters of MMC in rats after intravenous injection of the free MMC plus HCPT, MMC/HCPT loaded micelles, and MMC/HCPT loaded FA-micelles. Error bars indicated S.D. (n=6).

|                                                                       | free MMC<br>plus HCPT | MMC/HCP<br>T loaded<br>micelles | MMC/HCP<br>T loaded<br>FA-micelles |
|-----------------------------------------------------------------------|-----------------------|---------------------------------|------------------------------------|
| $t_{1/2}$ (h)                                                         | 0.32±0.03             | 3.61±0.35 <sup>a</sup>          | 3.73±0.28 <sup>a,b</sup>           |
| $AUC_{0-t}$<br>( $\mu\text{g}\cdot\text{h}\cdot\text{mL}^{-1}$ )      | 0.84±0.11             | 7.23±1.07                       | 7.64±1.21                          |
| $AUC_{0-\infty}$<br>( $\mu\text{g}\cdot\text{h}\cdot\text{mL}^{-1}$ ) | 0.86±0.07             | 7.49±1.13                       | 7.97±1.38                          |

|                         |           |           |           |
|-------------------------|-----------|-----------|-----------|
| MRT <sub>0-t</sub> (h)  | 0.34±0.08 | 4.01±0.29 | 4.20±0.37 |
| MRT <sub>0-∞</sub> (h)  | 0.38±0.07 | 4.89±0.55 | 5.22±0.41 |
| CL (L*h <sup>-1</sup> ) | 3.76±0.98 | 0.44±0.08 | 0.41±0.07 |

<sup>a</sup>P < 0.05 vs free MMC plus HCPT. <sup>b</sup>P > 0.05 vs MMC/HCPT loaded micelles.

**Table 3.** Pharmacokinetic parameters of HCPT in rats after intravenous injection of the free MMC plus HCPT, MMC/HCPT loaded micelles, and MMC/HCPT loaded FA-micelles. Error bars indicated S.D. (n = 6).

|                                                | free MMC<br>plus HCPT | MMC/HCP<br>T loaded<br>micelles | MMC/HCP<br>T loaded<br>FA-micelles |
|------------------------------------------------|-----------------------|---------------------------------|------------------------------------|
| t <sub>1/2β</sub> (h)                          | 0.30±0.04             | 3.71±0.27 <sup>a</sup>          | 3.99±0.38 <sup>a,b</sup>           |
| AUC <sub>0-t</sub><br>(μg*h*mL <sup>-1</sup> ) | 0.22±0.03             | 2.92±0.51                       | 3.09±0.72                          |
| AUC <sub>0-∞</sub><br>(μg*h*mL <sup>-1</sup> ) | 0.23±0.05             | 3.03±0.58                       | 3.26±0.63                          |
| MRT <sub>0-t</sub> (h)                         | 0.26±0.07             | 4.50±0.53                       | 4.87±0.81                          |
| MRT <sub>0-∞</sub> (h)                         | 0.30±0.07             | 5.38±0.89                       | 6.09±1.12                          |
| CL (L*h <sup>-1</sup> )                        | 13.68±2.50            | 1.05±0.17                       | 0.98±0.14                          |

<sup>a</sup>P < 0.05 vs free MMC plus HCPT. <sup>b</sup>P > 0.05 vs MMC/HCPT loaded micelles.