Amphiphilic Copolymer of Polyhedral Oligomeric Silsesquioxane (POSS) Methacrylate for Solid Dispersion of Paclitaxel

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Received: 21 February 2019; Accepted: 27 March 2019; Published: date

Figure S1. Synthesis of MPC-ran-C2H5-POSS.
Figure S2. A $^1$H NMR spectrum of MPC-ran-C$_2$H$_5$-POSS in methanol-$d_4$.

$^1$H NMR (400 MHz) spectra obtained from methanol-$d_4$ $\delta$: 0.94 [s, -C-CH$_3$], 1.91 [s, -CH$_2$-], 3.28 [s, -N(CH$_3$)$_3$], 3.9-4.3 [m, -OCH$_2$], 3.76 [s, -CH$_2$N], 0.59 [s, -Si-CH$_2$-].
Figure S3. DSC thermograms (the 2nd heating) of A: MPC-ran-C_{2}H_{5}-POSS; B: PVP; C: PTX; D: MPC-ran-C_{2}H_{5}-POSS/PTX; E: PVP/PTX; F: MPC-ran-C_{2}H_{5}-POSS/PVP/PTX.
Figure S4. FT-IR spectra of A: PTX; B: MPC-ran-C₂H₅-POSS/PTX physical mixture; C: PVP/PTX physical mixture; D: MPC-ran-C₂H₅-POSS/PTX/PVP/PTX physical mixture.