

Supporting Information

Thermo-sensitive Poly(VCL-4VP-NVP) Ionic Microgels: Synthesis, Cytotoxicity, Hemocompatibility, and Sustained Release of Anti- inflammatory Drug

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Guinier -type plots of $\text{Ln}I(q)^{-1} \sim q^2$ are shown in Figure S1 for the SLS data of poly(VCL-4VP-NVP) microgels, where I is the scattering intensity and $q = (4\pi n/\lambda) \sin(\theta/2)$, with λ , n , and θ being the wavelength of the laser light in vacuum (here $\lambda = 637$ nm), the refractive index of solvent, and the scattering angle, respectively. $\langle R_g \rangle$ could be then calculated from the slope of $\text{Ln}I(q)^{-1} \sim q^2$ via the equation given as:

$$\text{Ln}I(q)^{-1} = \text{Ln}I(0)^{-1} + \frac{\langle R_g \rangle^2}{3} q^2 \quad (\text{S1})$$

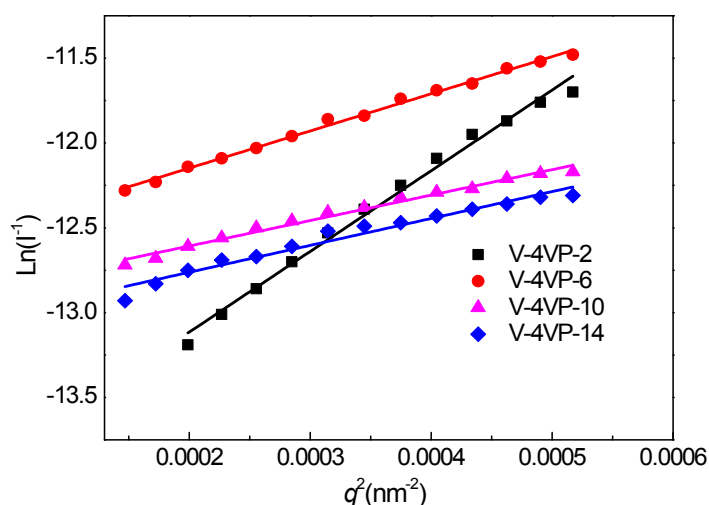


Fig. S1 The SLS data of the V-4VP-2 (■), V-4VP-6 (●), V-4VP-10 (▲), V-4VP-14 (◆) microgels. The solid lines are fits with Guinier equation (S1).

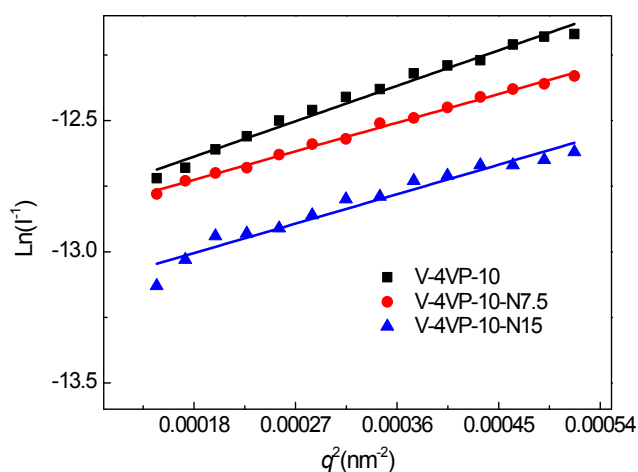


Fig. S2 The SLS data of the V-4VP-10(■), V-4VP-10-N7.5 (●), V-4VP-10-N15 (▲) microgels. The solid lines are fits with Guinier equation (S1).

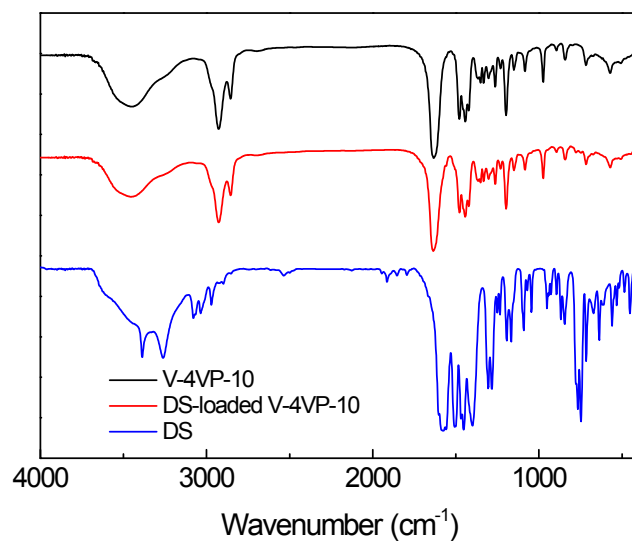


Fig. S3 The FTIR spectra of V-4VP-10 microgels, DS, and DS-loaded V-4VP-10 microgels.

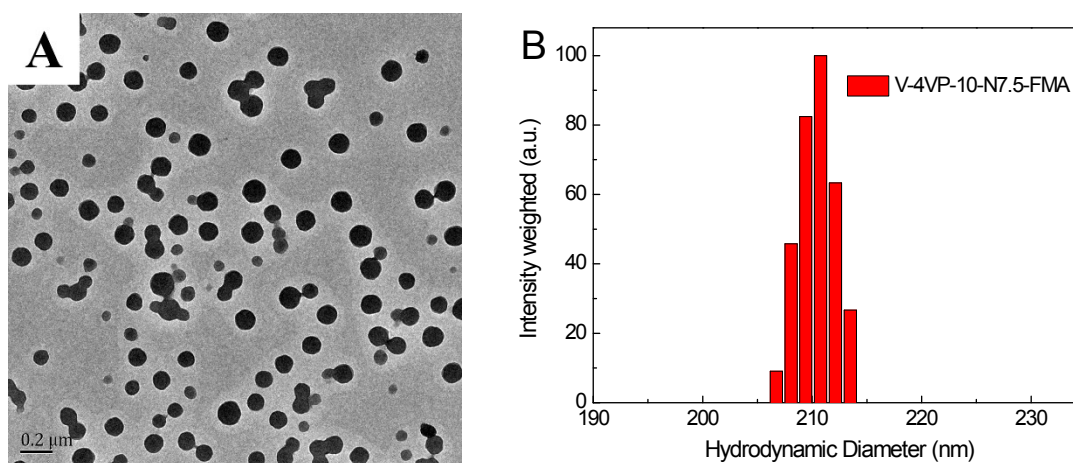


Fig. S4 The representative TEM image (A) and corresponding distribution of hydrodynamic diameter (B) of the fluorescent V-4VP-10-N7.5-FMA microgels.

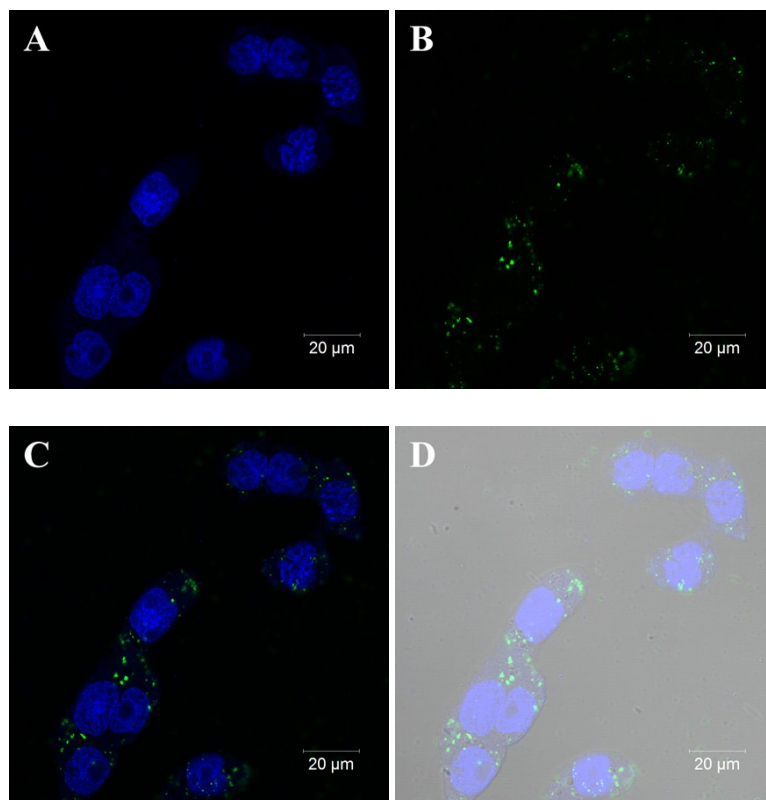


Fig. S5 CLSM fluorescent images of HEK-293 cells incubated with 10 $\mu\text{g}/\text{mL}$ of V-4VP-10-N7.5-FMA microgels loaded with DS drugs, named as V-4VP-10-N7.5-FMA-DS, for 4 h. (A) The blue image of nucleus of HEK-293 cell stained with DAPI, (B) the green image of V-4VP-10-N7.5-FMA-DS microgels labeled with FAM, (C) the overlapping fluorescent image of HEK-293 cell nucleus and V-4VP-10-N7.5-FMA-DS microgels, and (D) the constructive image by further overlapping (C) with the normal optical image of HEK-293 cells.