Supporting Information

A thermal responsive cationic nanogel based platform for cell three-dimensional culture and recovery

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Figure S1. Conductivity and pH titrations of the PNHD nanogels. (a): PNHD1; (b): PNHD2; (c): PNHD3.
Figure S2. Hydrodynamic size distributions of the PNHD nanogels measured by dynamic light scattering (DLS) in water ($C \sim 1.0 \text{ mg/mL}$, pH $\sim 7.0$) at 25 °C. (a): PNHD1; (b): PNHD2; (c): PNHD3; (d): PNHD5.
Figure S3. Frequency sweeps of 50 mg/ml PNHD nanogels at different temperatures. The open symbols are $G''$ and closed symbols are $G'$. 
Figure S4. (a): Image of trypsinized adherent C3H/10T1/2 cells as the reference of cell size. (b): Image of C3H/10T1/2 cells cultured in the *in situ* formed PNHD1 hydrogel for 6 days; the cultured cells were recovered from the hydrogels by cooling the culturing system to room temperature. (c): Image of the attached C3H/10T1/2 cells (released from the *in situ* formed PNHD1 hydrogel) to a 2D substrate. Scale bar: 50 µm.