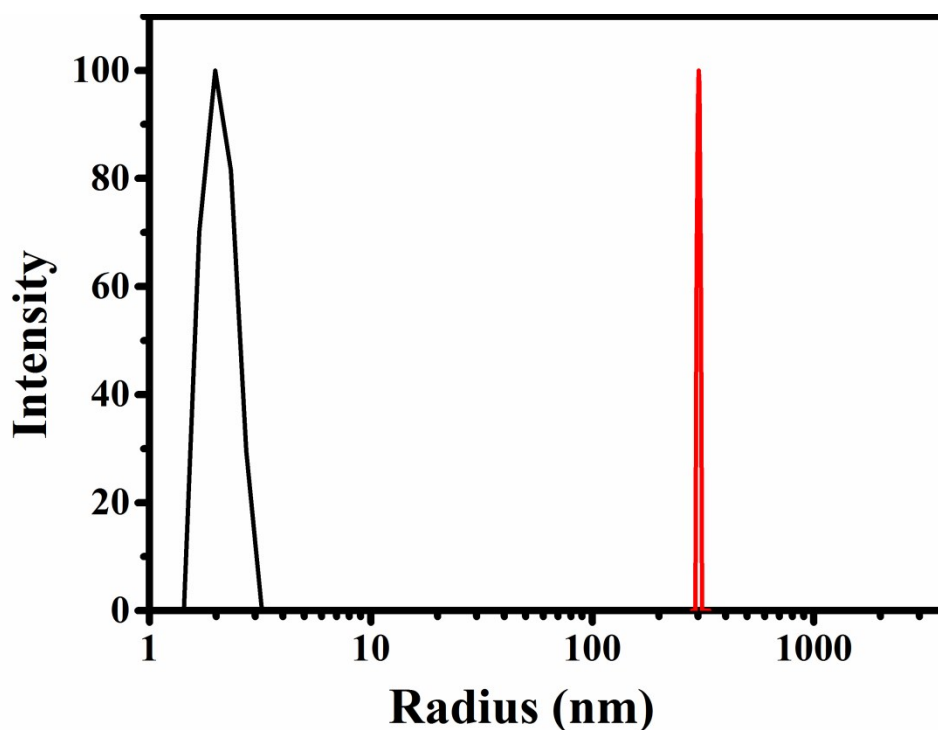


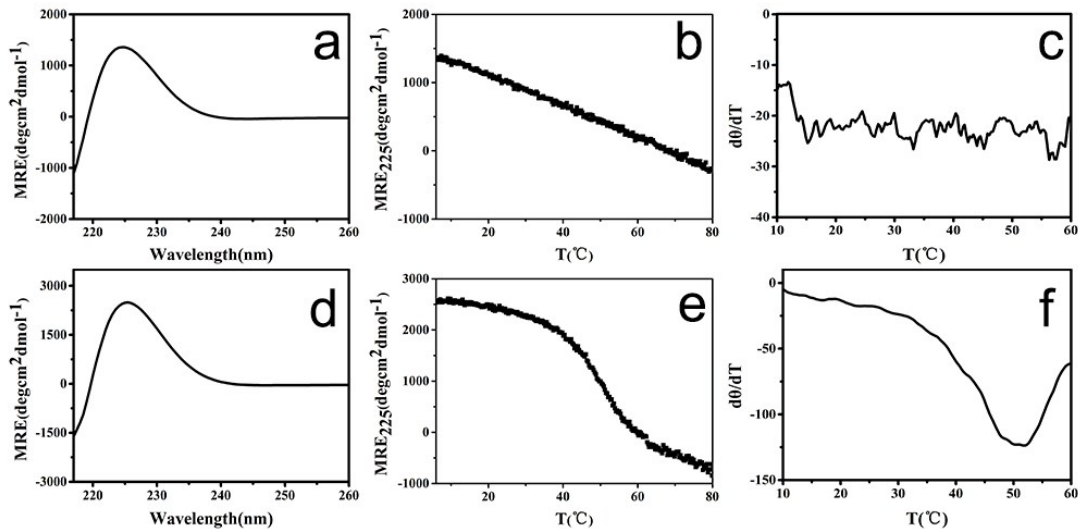
### Supporting information

#### Terminal aspartic acids promote the self-assembly of collagen mimic peptides into nanospheres

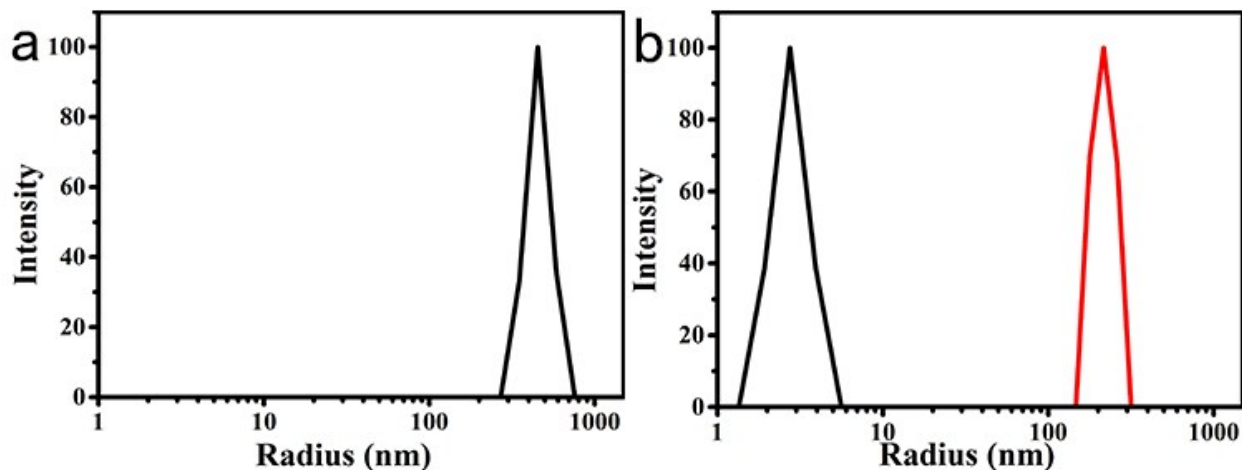
Linyan Yao, Manman He, Dongfang Li, Jing Tian, Huanxiang Liu, Jianxi Xiao



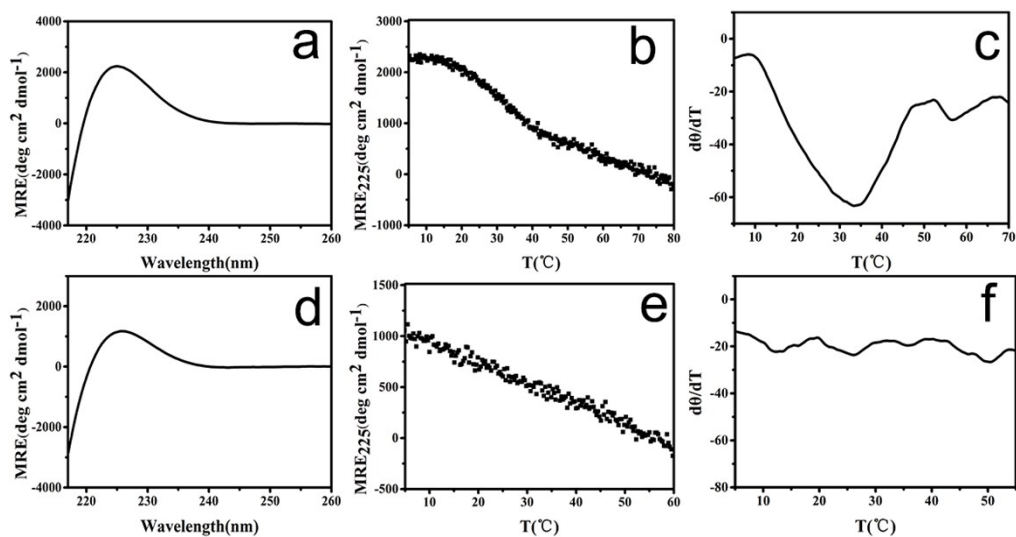
**Figure S1.** Dynamic Light Scattering (DLS) measurements of peptide (GPO)<sub>7</sub>D<sub>2</sub> at pH 7.0 . DLS experiments were performed on the peptide (0.5 mg/ml) stored at 4 °C (black) and that incubated at 4 °C for 60 hrs after preheating at 20 °C for 30 min (red).



**Figure S2.** CD characterization of collagen mimic peptides (GPO)<sub>5</sub>D<sub>2</sub> (a-c) and (GPO)<sub>9</sub>D<sub>2</sub> (d-f) at pH 7.0. CD spectra (a), CD thermal unfolding (b) and the first derivative (d[θ]/dT) of the CD unfolding curve (c) of peptide (GPO)<sub>5</sub>D<sub>2</sub>. CD spectra (d), CD thermal unfolding (e) and the first derivative (d[θ]/dT) of the CD unfolding curve (f) of peptide (GPO)<sub>9</sub>D<sub>2</sub>.



**Figure S3.** Dynamic Light Scattering (DLS) measurements of peptides (GPO)<sub>5</sub>D<sub>2</sub> (a) and (GPO)<sub>9</sub>D<sub>2</sub> (b) at pH 7.0. DLS experiments were performed on peptide (GPO)<sub>5</sub>D<sub>2</sub> (0.5 mg/ml) incubated at 4 °C without preheating (black). DLS experiments were performed on peptide (GPO)<sub>9</sub>D<sub>2</sub> (0.5 mg/ml) stored at 4 °C (black) and that incubated at 4 °C for 60 hrs after preheating at 47°C for 30 min (red).



**Figure S4.** CD characterization of collagen mimic peptides (GPO)<sub>7</sub> (a-c) and (GPO)<sub>7</sub>D<sub>5</sub> (d-f) at pH 7.0. CD spectra (a), CD thermal unfolding (b) and the first derivative (d[θ]/dT) of the CD unfolding curve (c) of peptide (GPO)<sub>7</sub>. CD spectra (d), CD thermal unfolding (e) and the first derivative (d[θ]/dT) of the CD unfolding curve (f) of peptide (GPO)<sub>7</sub>D<sub>5</sub>.