Supporting Information

Table S1. CD parameters and Rpn values of the PT-assembled collagen peptides, non-templated collagen peptides, $(Pro\text{-}Pro\text{-}Gly)_3$, $(Pro\text{-}Hyp\text{-}Gly)_{10}$, and calf-skin collagen.

Samples	Maximum, nm (ellipticity)	Crossover, nm (ellipticity)	Minimum, nm (ellipticity)	Rpn*
PT-CP1	225 (0.26×10^4)	218	199 (-2.40×10^4)	0.11
PT-CP2	223 (0.22×10^4)	217	201 (-2.02×10^4)	0.11
PT-CP3	221 (0.31×10^4)	215	200 (-1.72×10^4)	0.18
PT-CP4	224 (0.45×10^4)	217	202 (-2.64×10^4)	0.17
CP1	226 (0.11×10^4)	220	201 (-1.93×10^4)	0.06
CP2	226 (0.03×10^4)	222	200 (-1.27×10^4)	0.02
CP3	222 (0.06×10^4)	218	202 (-1.01×10^4)	0.06
CP4	225 (0.22×10^4)	219	201 (-2.40×10^4)	0.09
$(Pro\text{-}Pro\text{-}Gly)_3$	---	---	200 (-0.94×10^4)	---
$(Pro\text{-}Hyp\text{-}Gly)_{10}$	225 (0.32×10^4)	218	199 (-2.97×10^4)	0.11
Calf-skin collagen	222 (0.26×10^4)	214	197 (-2.11×10^4)	0.12

* Rpn represents the ratio of positive peak over the negative peak intensity in the CD spectra.

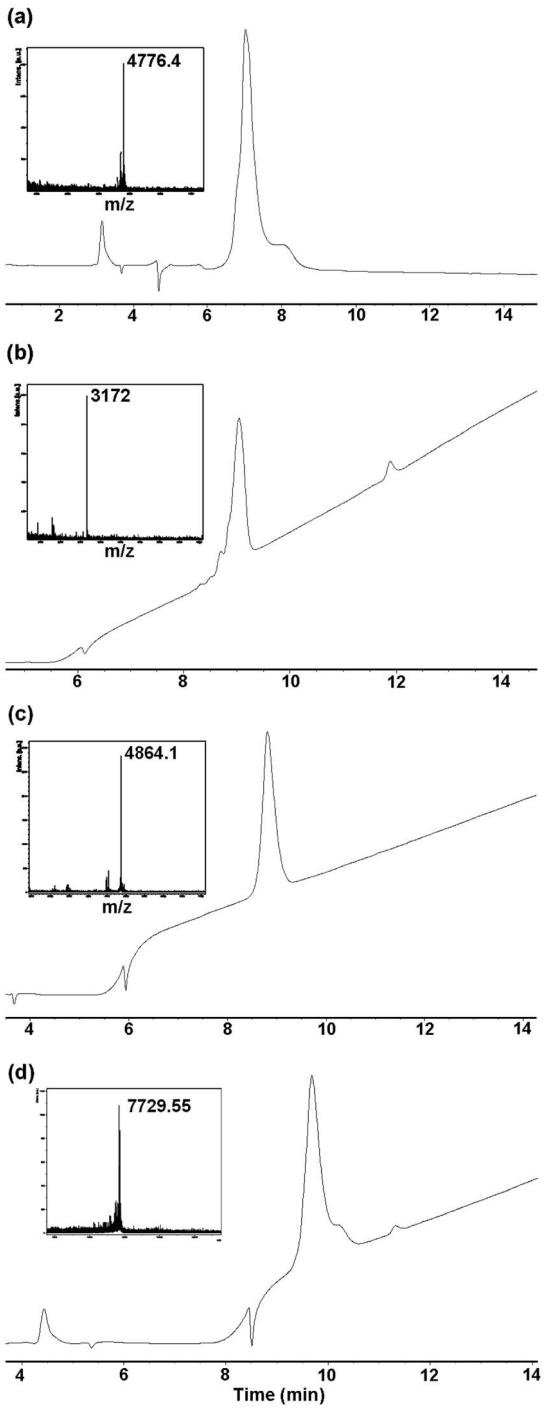

Figure S1. Analytical RP-HPLC chromatograms of purified (a) PT-CP1, (b) PT-CP2, (c) PT-CP3, and (d) PT-CP4 and their respective MALDI-TOF MS spectra (left). HPLC buffer gradient is from 90%A and 10%B to 55%A and 45%B in 30 mins at a total flowrate of 1 ml/min, where buffer A is 01% TFA in H_2O and buffer B is 0.1% TFA in acetonitrile. Injection volume was 50 µl.

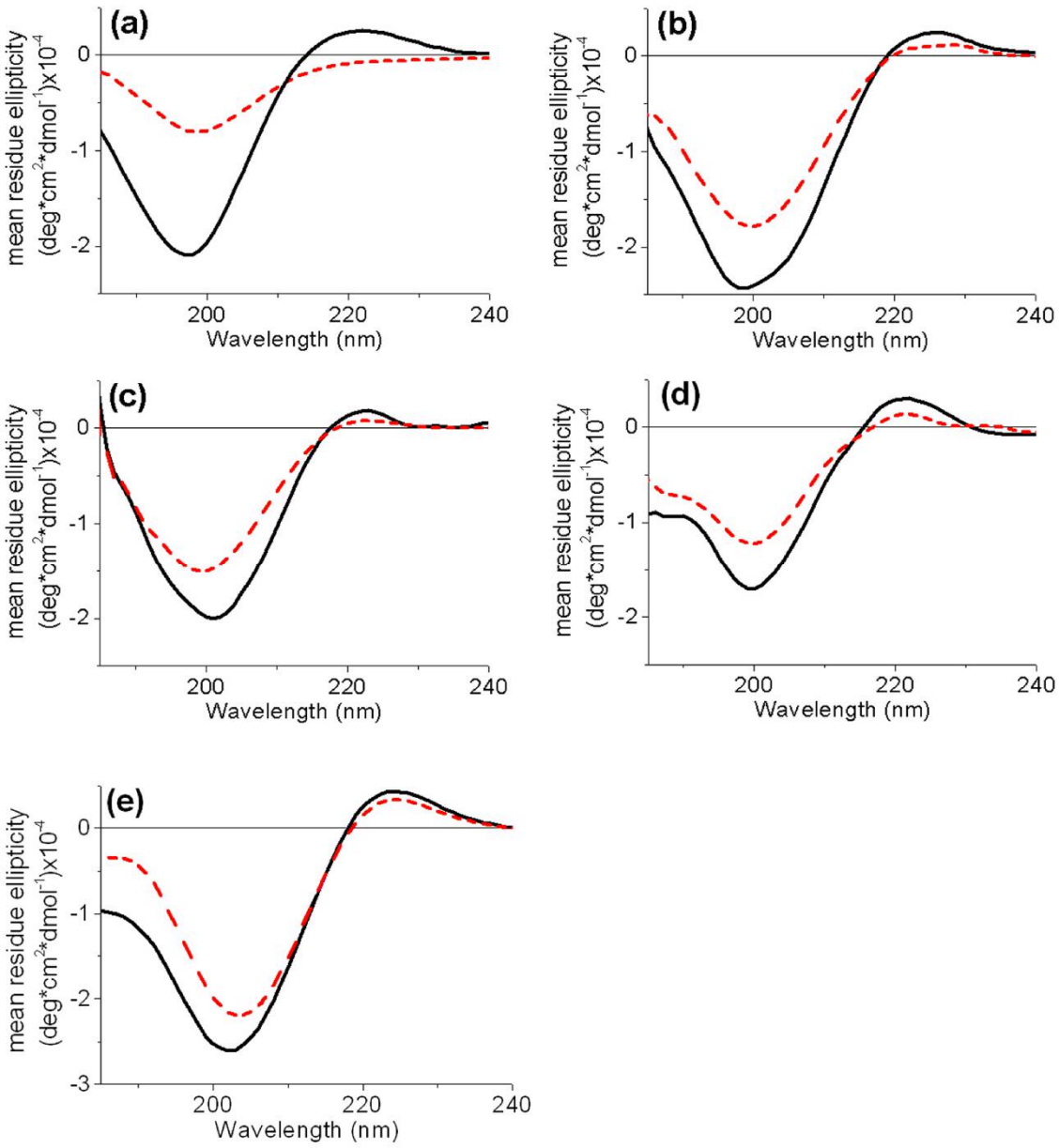

Figure S2. CD spectra of natural collagen and PT-assembled collagen peptides at 20^{o}C (solid line) and 70^{o}C (segmented line): (a) calf-skin collagen, (b) PT-CP1, (c) PT-CP2, (d) PT-CP3, and (e) PT-CP4 in water.

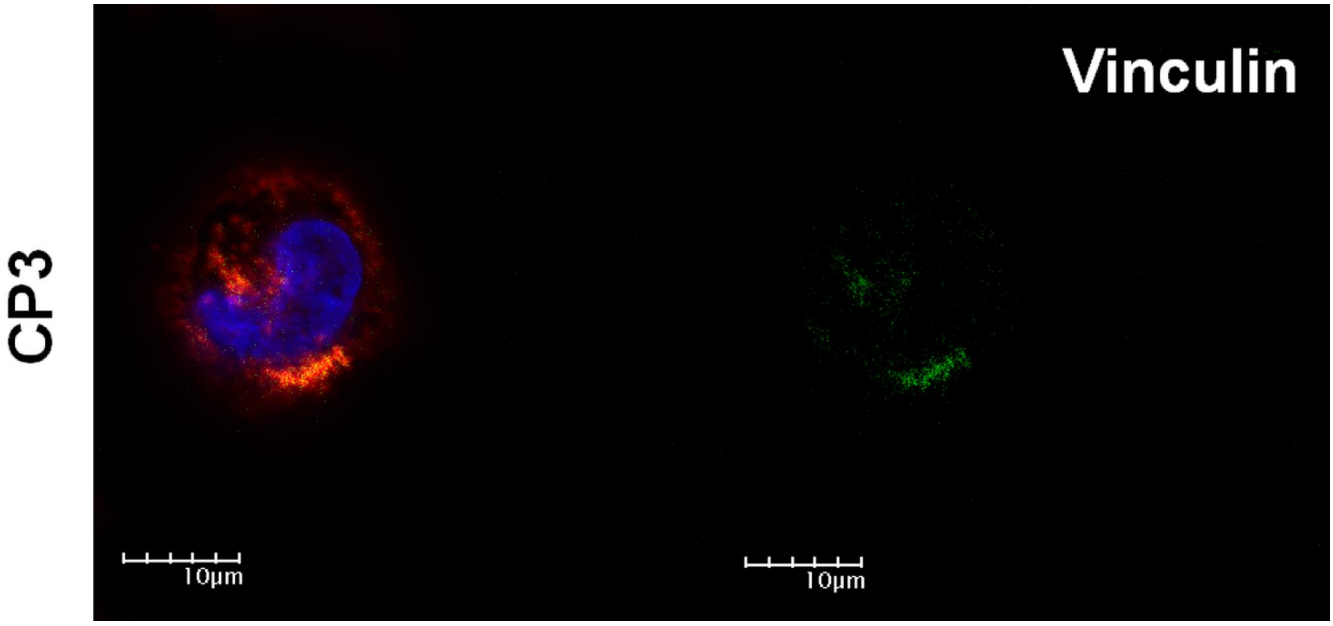

Figure S3. Immunofluorescence images of Hep3B cells on CP3. Confocal images were taken after the cells, in serum-free medium, were seeded on different surfaces for 3 hours.