

Supplementary material

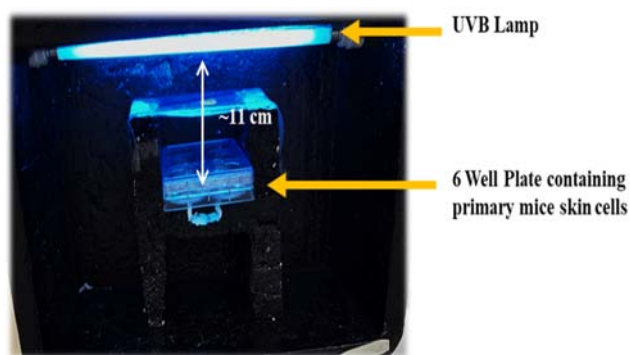


Figure S1: Setup for UVB radiation treatment.

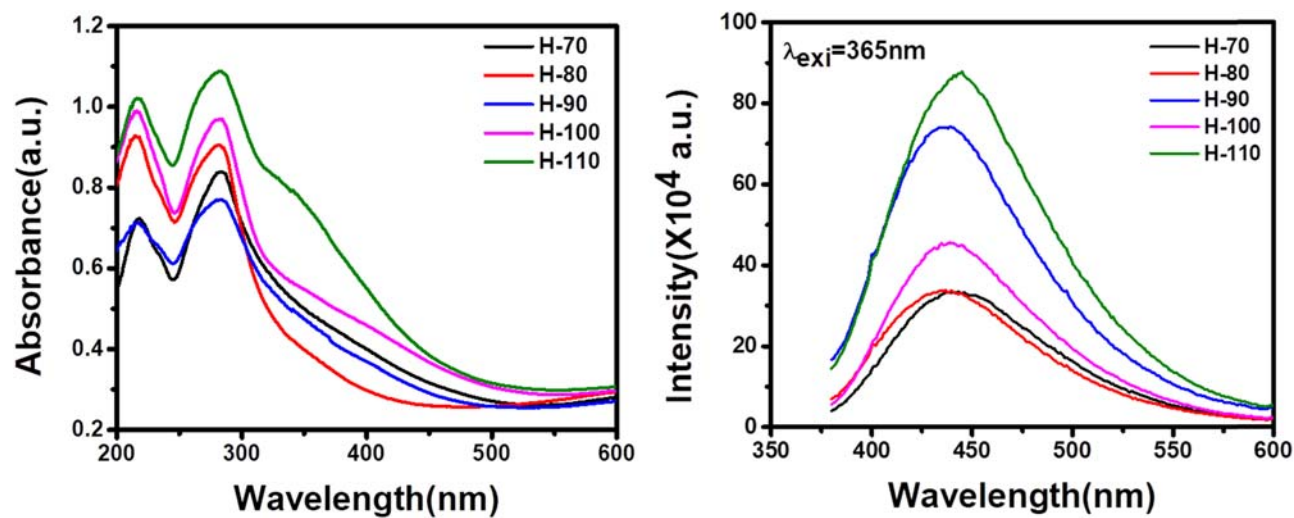


Figure S2: (a) Absorbance spectrum of hydrogel phase of BSA protein (H-70 to H-110); (b) emission spectrum of the hydrogel at an excitation wavelength of 365 nm.

Table S1: Parameters used to fit the equation 1 for H-60 sample

Lorentz scale (C)	Guinier scale (G)	Radius of gyration (R_g) (Angstrom)	Fractal dimension (D)	Correlation length (a_1) (Angstrom)
0.75183	5.9978	59.821	1.755	220.39

Table S2: Parameters used to fit the equation 2 for H-70, H-90 and H-110 sample

Parameters	H70	H90	H110
Lorentz scale (C)	85.1	0.07646	0.079
Porod scale (A)	1.3×10^{-4}	7.35×10^{-5}	7.72×10^{-5}
Correlation length (a_1) (Angstrom)	176.75	19.328	18.3
Porod exponent (n)	1.75	2.3998	2.42
Lorentz exponent (m)	3.26	3.63	3.72