

Supporting information

Circular dichroism (CD) spectroscopy

The circular dichroism experiment was performed in 0.01cm quartz cells with a circular dichroism spectrometer (Jasco J-810). Spectra were recorded between 180 and 300nm with a 1 nm data pitch.

In vitro degradation test

Three different DIC loaded Nap-GFFY hydrogels (0.1%, 0.2% and 0.3% DIC, w/v) were adopted for in vitro degradation test. Briefly, 0.5ml hydrogel was transferred into a 10ml glass vial followed by the addition of 2ml PBS (pH=7.4) for incubation at 37°C with stirring at 100rpm/min for the degradation study. The volume changes of hydrogel was recorded and the degradation was calculated by the following formula: Degradation (%)=(Original volume of hydrogel-Volume of hydrogel at predetermined time point)/Original volume of hydrogel ×100.

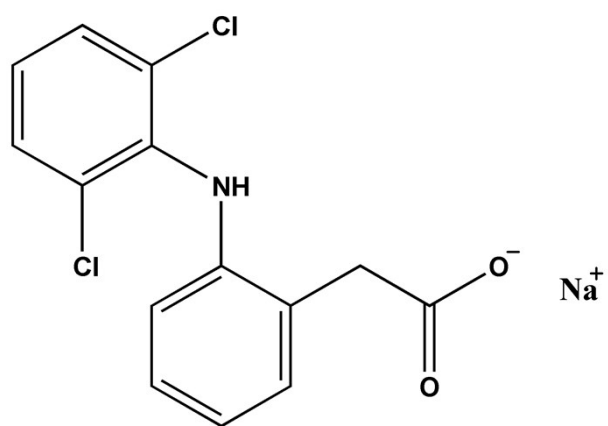


Fig.S1 Chemical structure of diclofenac sodium

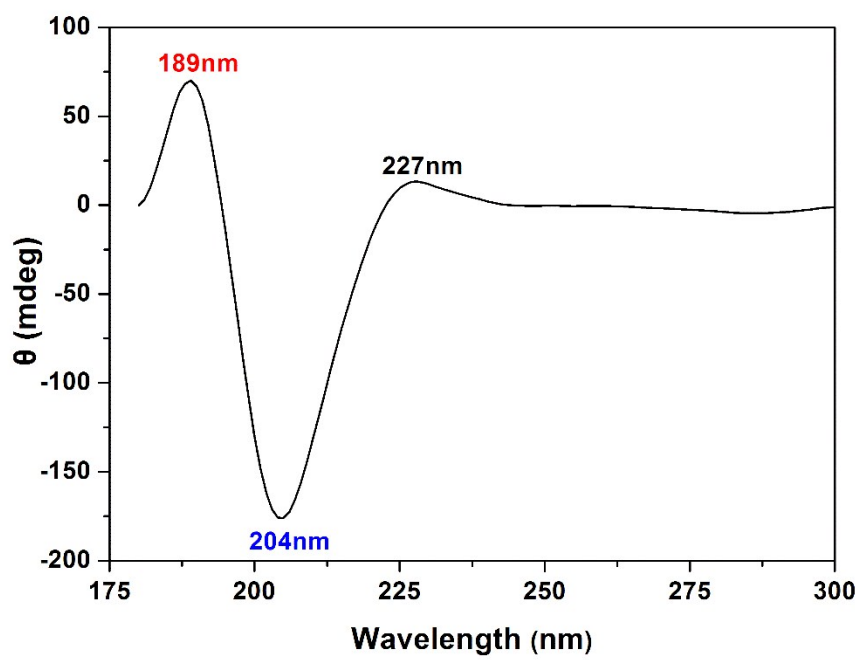


Fig.S2 Circular dichroism (CD) spectrum of Nap-GFFY hydrogel

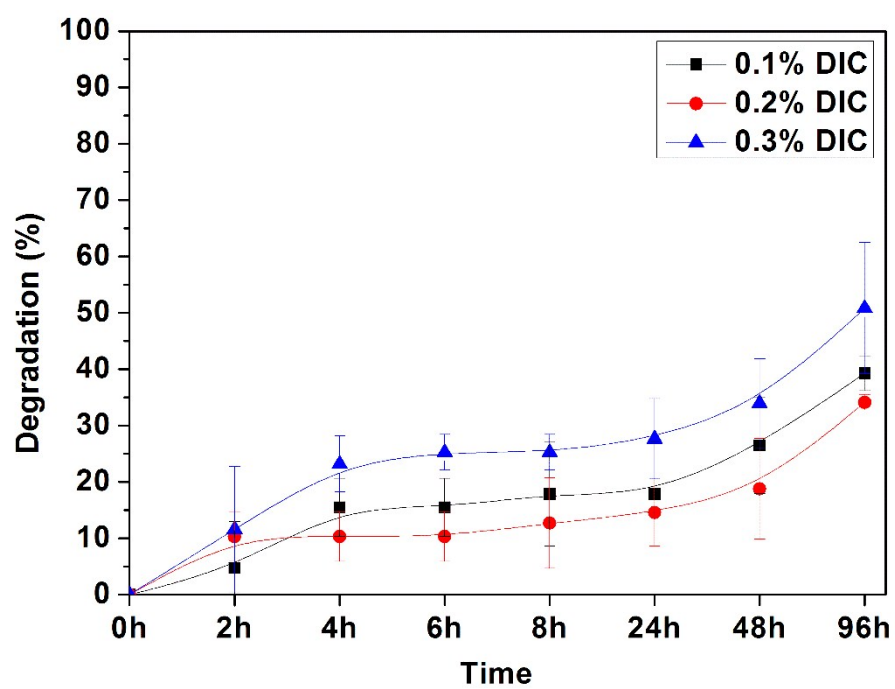


Fig.S3 In vitro degradation profile of DIC loaded Nap-GFFY hydrogels (0.1%, 0.2% and 0.3% DIC, w/v) at 37°C in PBS (pH=7.4). Bars shown are mean \pm SE, (n=3).