

Supporting Information

Compound Nap-G^DFFY: ¹H NMR (300 MHz, DMSO) δ 8.44 (d, J = 8.5 Hz, 1H), 8.36 (d, J = 7.1 Hz, 1H), 8.24 (s, 1H), 7.94 (d, J = 8.2 Hz, 1H), 7.84 (m, 8.9 Hz, 3H), 7.74 (s, 1H), 7.44 (m, 3H), 7.36 – 7.22 (m, 4H), 7.14 (m, 4H), 7.05 (d, J = 8.0 Hz, 2H), 6.93 (s, 2H), 6.67 (d, J = 8.0 Hz, 2H), 4.65 – 4.48 (m, 2H), 4.36 (d, J = 6.0 Hz, 1H), 3.78 – 3.52 (m, 5H), 3.08 – 2.92 (m, 2H), 2.84 (m, 1H), 2.76 – 2.55 (m, 2H), 2.44 – 2.31 (m, 1H). MS: calc. M = 700.78, obsvd. M = 701.

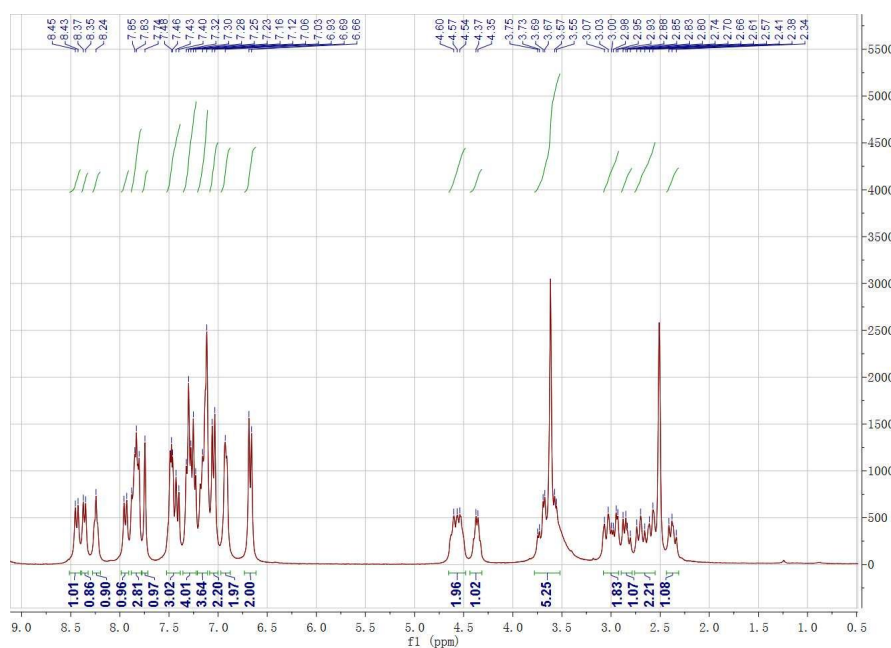


Fig. S-1. ¹H NMR of Nap-G^DFFY

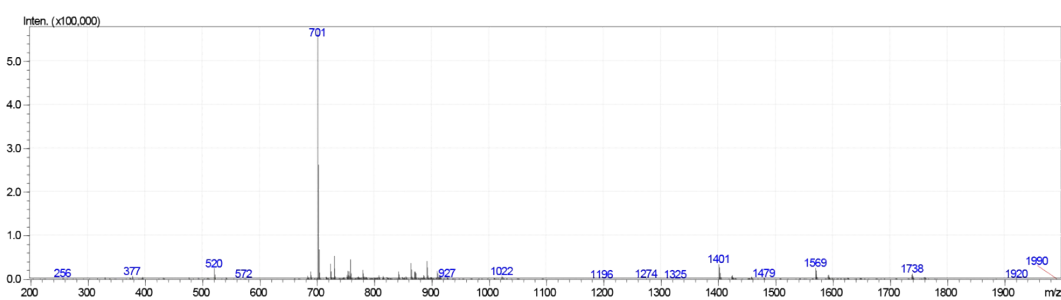


Fig. S-2. Mass spectrum of Nap-G^DFFY

Compound Nap-GF^DFY: ¹H NMR (300 MHz, DMSO) δ 9.21 (s, 1H), 8.45 (d, *J* = 27.5 Hz, 2H), 8.24 (s, 1H), 7.84 (t, *J* = 30.9 Hz, 6H), 7.45 (d, *J* = 16.6 Hz, 3H), 7.32 – 6.87 (m, 14H), 6.67 (s, 2H), 4.70 – 4.33 (m, 3H), 3.61 (s, 5H), 2.97 (s, 1H), 2.74 (s, 2H), 2.44 – 2.26 (m, 2H). MS: calc. *M* = 700.78, obsvd. *M* = 701.

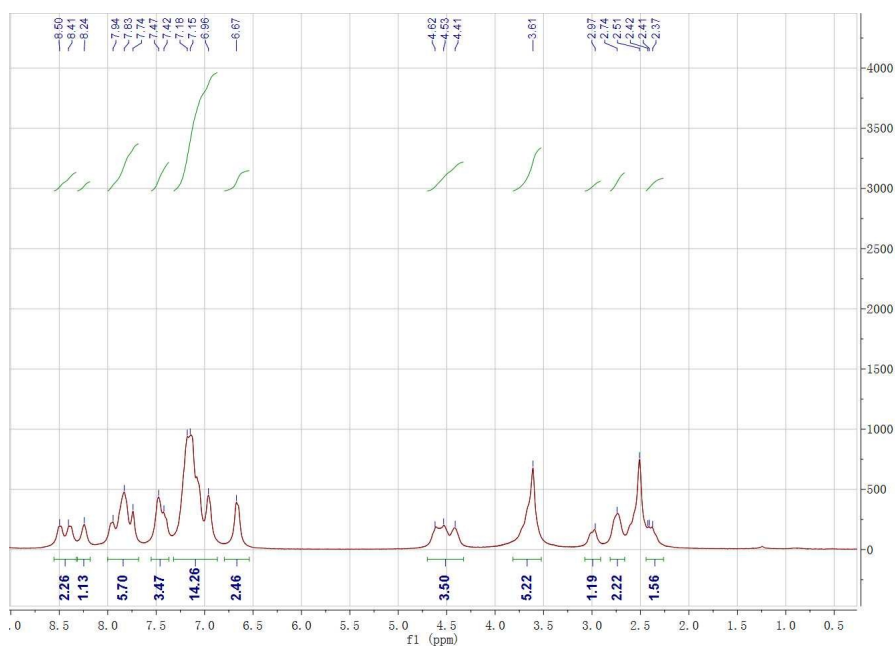


Fig. S-3. ¹H NMR of Nap-GF^DFY

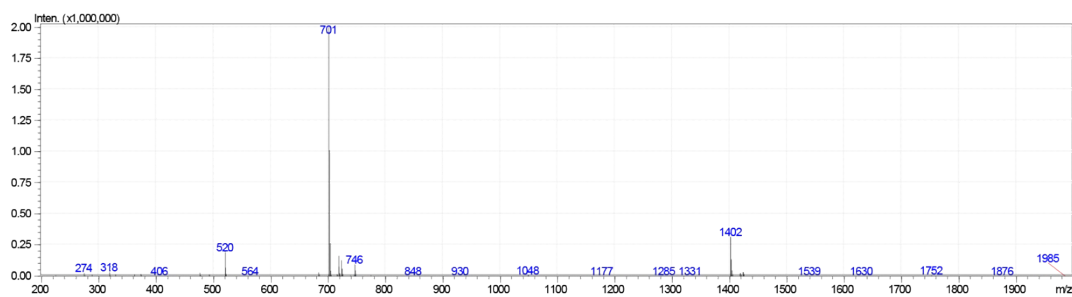


Fig. S-4. Mass spectrum of Nap-GF^DFY

Compound Nap-GFF^{DY}: ¹H NMR (300 MHz, DMSO) δ 9.21 (s, 1H), 8.38 (d, *J* = 8.2 Hz, 1H), 8.26 (t, *J* = 5.4 Hz, 1H), 8.10 (d, *J* = 8.4 Hz, 1H), 8.02 (d, *J* = 8.2 Hz, 1H), 7.83 (dd, *J* = 9.2, 3.7 Hz, 3H), 7.76 (s, 1H), 7.53 – 7.39 (m, 4H), 7.16 (m, 9.3 Hz, 10H), 7.04 (d, *J* = 8.2 Hz, 5H), 6.66 (d, *J* = 8.3 Hz, 3H), 4.63 – 4.47 (m, 2H), 4.44 – 4.32 (m, 1H), 3.73 (m, 5.5 Hz, 1H), 3.62 (m, 3H), 3.56 (d, *J* = 5.5 Hz, 1H), 2.68 (m, 11.1 Hz, 5H). MS: calc. M = 700.78, obsvd. M = 701.

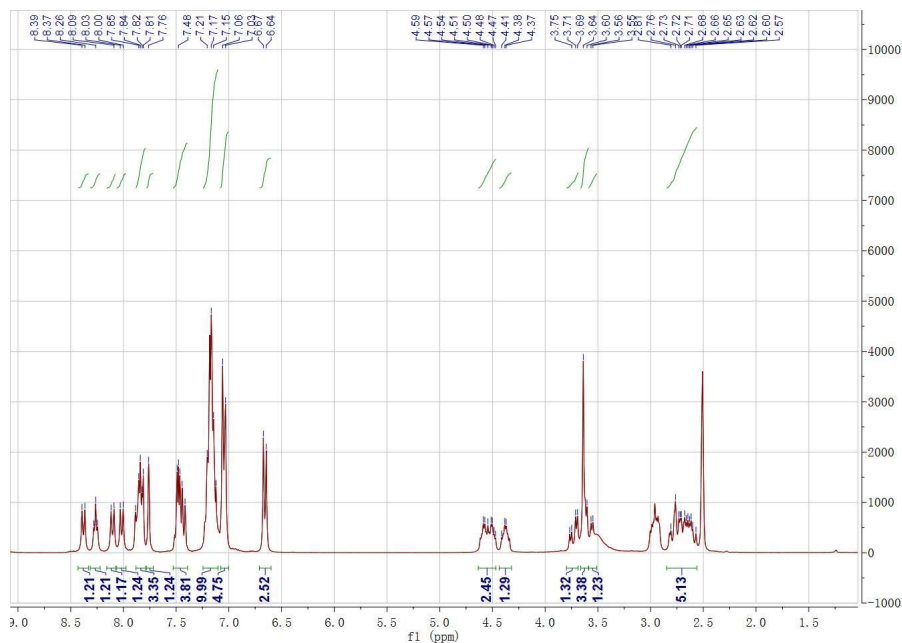


Fig. S-5. ¹H NMR of Nap-GFF^{DY}.

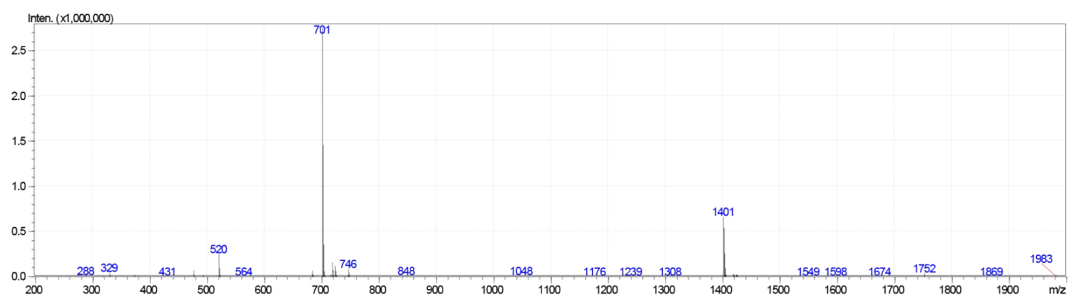


Fig. S-6. Mass spectrum of Nap-GFF^{DY}

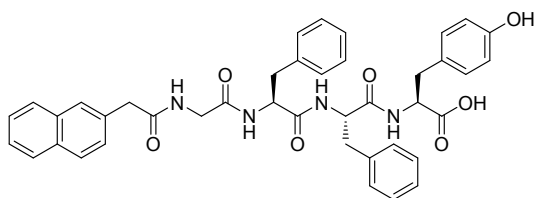


Fig. S-7. Chemical structure of Nap-GFF^{DY} and optical picture of L-gel

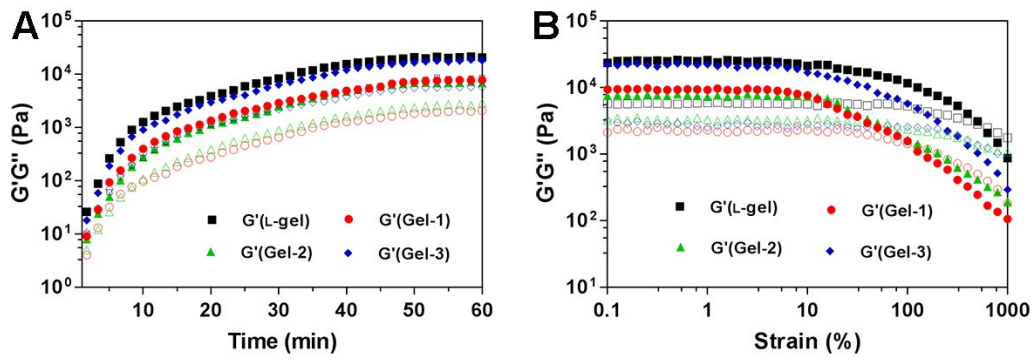


Fig. S-8. (A) Dynamic time sweep at frequency of 1 rad/s and strain of 1%, (B) Dynamic strain sweep of hydrogels at frequency of 1 rad/s at 37°C

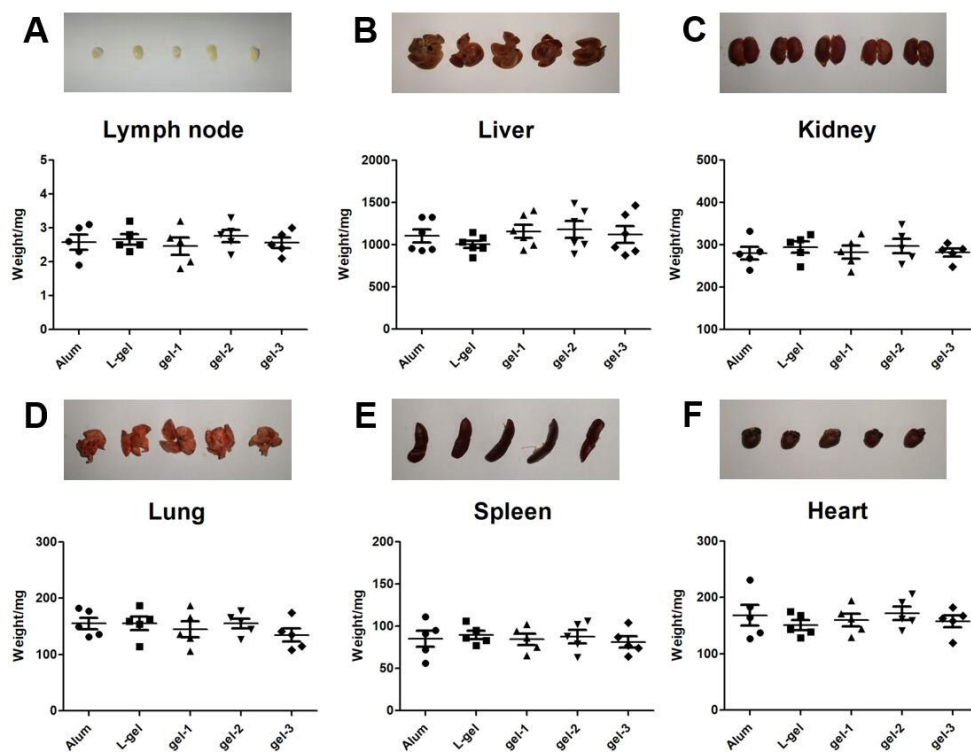


Fig. S-9. Photographs and weight of mice major organs

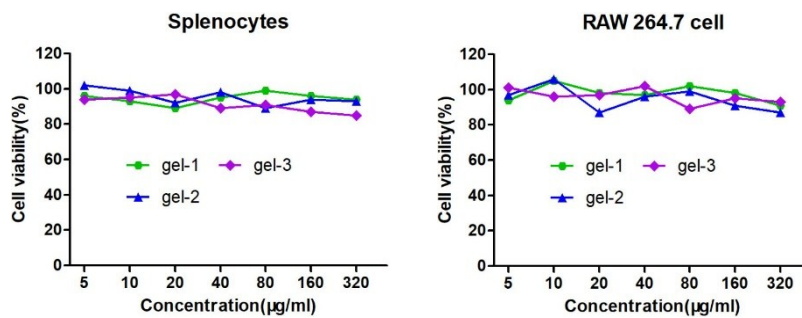


Fig. S-10. The cytotoxicity effect of hydrogels on splenocytes and Raw 264.7 cells.