

Supporting Information

Contraction-Actuated Thermo-Responsive Hydrogels Accelerate Wound Healing
via Mechanosensitive Proliferation

Yangyang Liu^a, Huibo Wang^a, Changliang Wu^a, Xingang Peng^a, Junhao Zhang^a, Shulin
Liang^a, Ze Li^{a,b*}, Xiuwen Wu^{b*}, Jianan Ren^{b*}, Peige Wang^{a*}

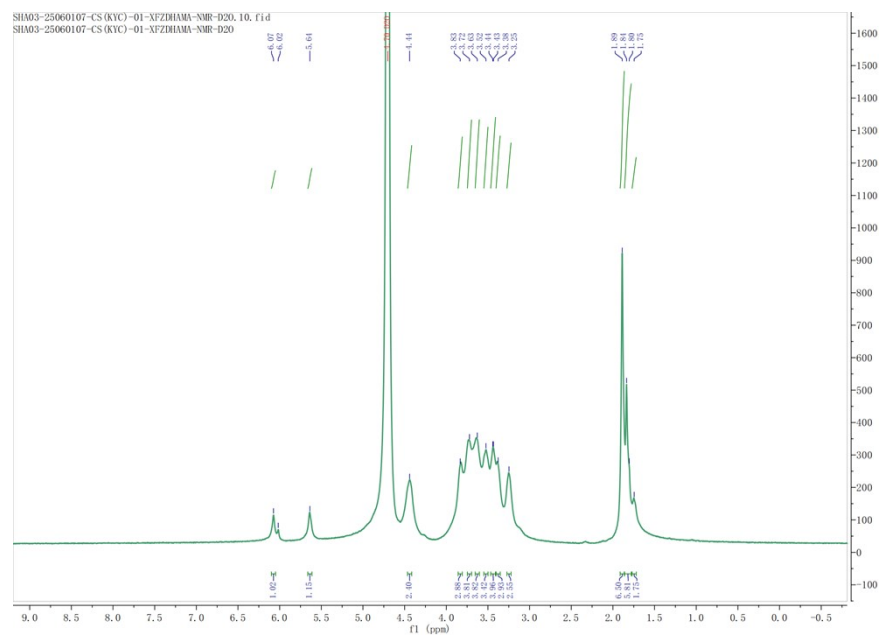


Figure S1. Characteristics of HAMA. NMR spectra of HAMA.

Table S1 The concentration of each component in the HNA hydrogel

	HNA ₁	HNA ₂	HNA ₃
HAMA	1%	2%	3%
NIPAM	20%	25%	30%
AA	6%	8%	10%

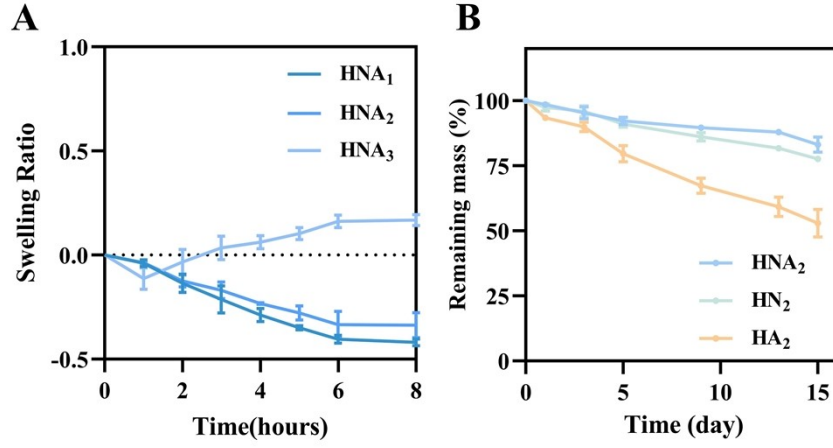


Figure S2. Material properties of HNA hydrogels. A) Swelling properties of HNA₁, HNA₂, and HNA₃ hydrogels (n=3). B) Degradation rates of HNA, HN, and HA hydrogels in PBS at 37°C (n=3).

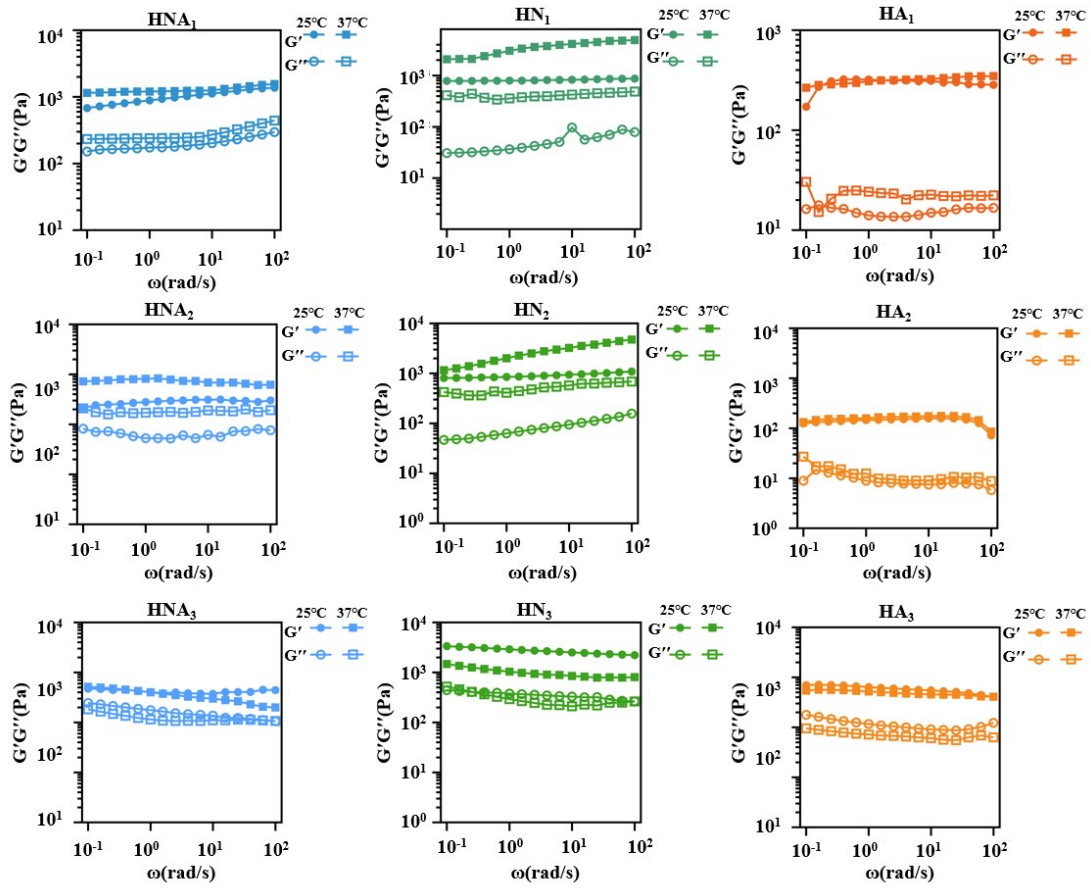


Figure S3. Material properties of HNA hydrogels. Rheological behavior of each component of the hydrogel.

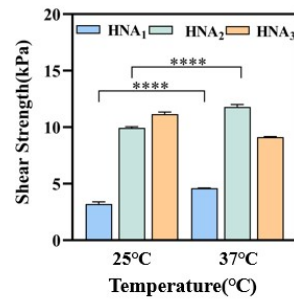


Figure S4. Material properties of HNA hydrogels. Adhesive properties of each component hydrogel. **** $p < 0.0001$.

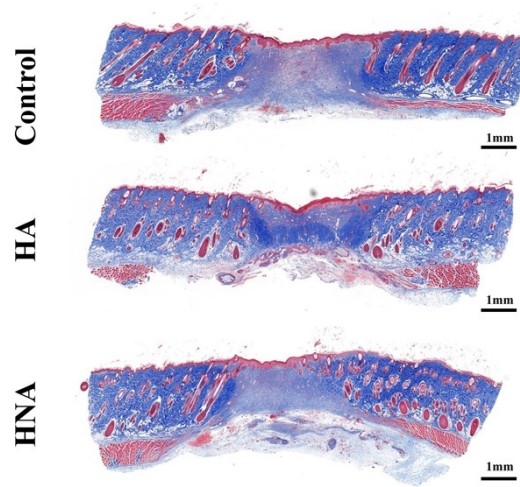
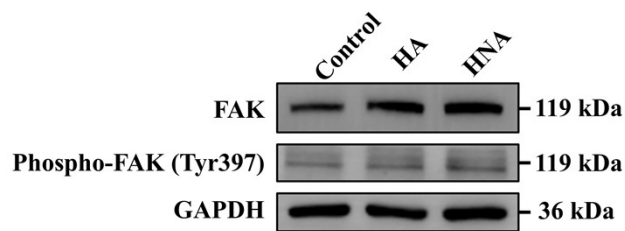


Figure S5. Histological evaluation of the wound at day 9. Masson's stain ($n = 5$).

A



B

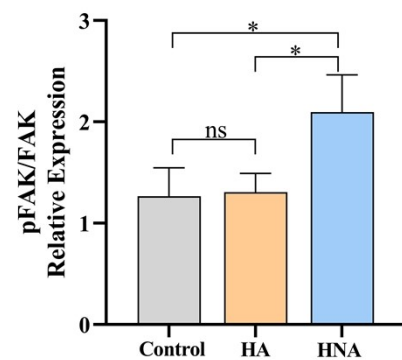


Figure S6. A · B) Western blots and quantitative analysis of wounds in the control, HA and HNA groups after 9 days of treatment ($n = 5$). * $p < 0.05$, ** $p < 0.01$.