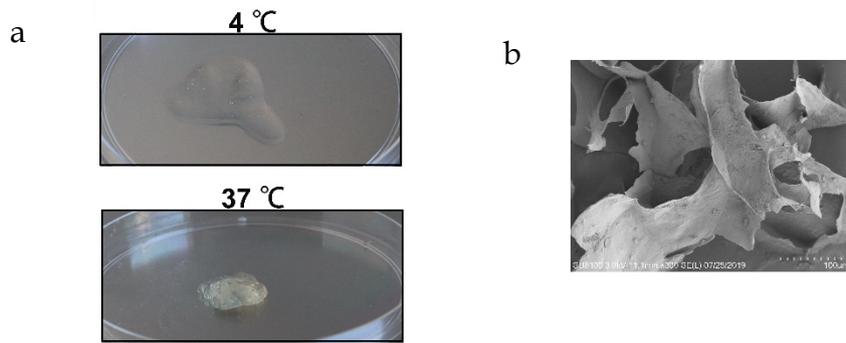
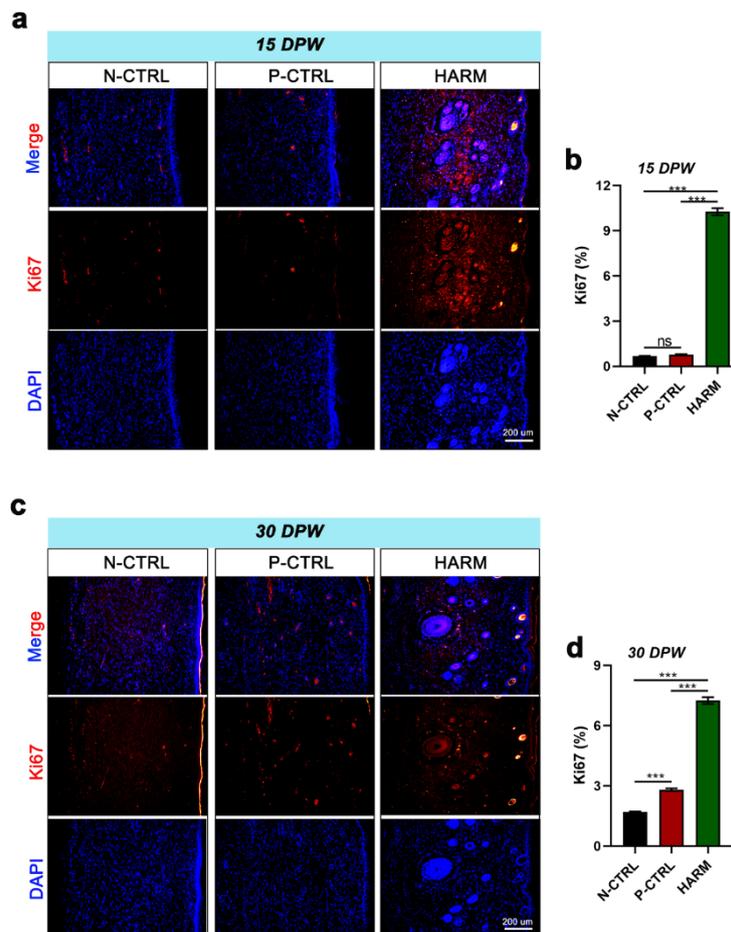


Supplementary material



Supplementary Figure 1 Scanning electron microscope image of HARM (b) and the states of HARM at 4°C and 37°C. Note that HARM was semi solid state at 4 ° C, and solid state at 37 ° C.



Supplementary Figure 2 Effects of HARM on cell proliferation in healed skin of rat wounds. a, b: Ki67 immunofluorescence staining and the expression

percentage of CD31 on 15 DPW. **c, d:** Ki67 immunofluorescence staining and the expression percentage of CD31 on 30 DPW. Note that the highest percentage of Ki67 was detected in the HARM group, compared to the other two control groups; at the same time, Ki67 is mainly expressed in cutaneous appendage cells and vascular-related cells. DPW, days post-wounding; HARM, hydrogels derived from antler reserve mesenchyme; N-CTRL, negative control; P-CTRL, positive control. n = 3; Mean \pm SEM; statistically significant at $^{***}p < 0.001$, ns: no significance.

Supplemental tables

Supplementary table 1 Antibodys.

Antibody	Company	Catalog number	Test type	Dilution
anti-CD31		bs-0195R-AF488	IF: 1:500	
anti-IL10		bs-0698R-AF488	IF: 1:500	
anti-TGF β 3		bs-0099R-AF647	IF: 1:500	
anti-Ki67	Bioss,	bs-2130R-Cy3	IF: 1:500	
Anti-Engrailed 1	China	bs-11744R	WB: 1:2000	
anti-CD73		bs-4834R	IF: 1:500	
anti-CD90		bs-20640R	IF: 1:500	

IF, immunofluorescence; FCM, flow cytometry; WB, western blot.

Supplementary table 2 Primers.

Gene	Primer
Collagen I	5'-GTCCTATGGCTATGATGAGAAATC-3'
	5'-CACCATCCAAACCACTGAAAC-3'
Collagen III	5'-AGCCACCTTGGTCAGTCCTA-3'
	5'-GTGTAGAAGGCTGTGGGCAT-3'
TGF β 1	5'-CACCTGCAAGACCATCGACA-3'

	5'-GCATAGTAGTCCGCTTCGGG-3'
TGFβ3	5'-AGAATCCCAGCGCTACAAGG-3'
	5'-GTCCCCTAATGGCTTCCACC-3'
GAPDH	5'-TGGGACTGATCCCATTGATT-3'
	5'-TGTAGACCATGTAGTTGAGGTCA-3'
