

Supporting Information

Tannic acid-reinforced zwitterionic hydrogels with multi-functionalities for diabetic wound treatment

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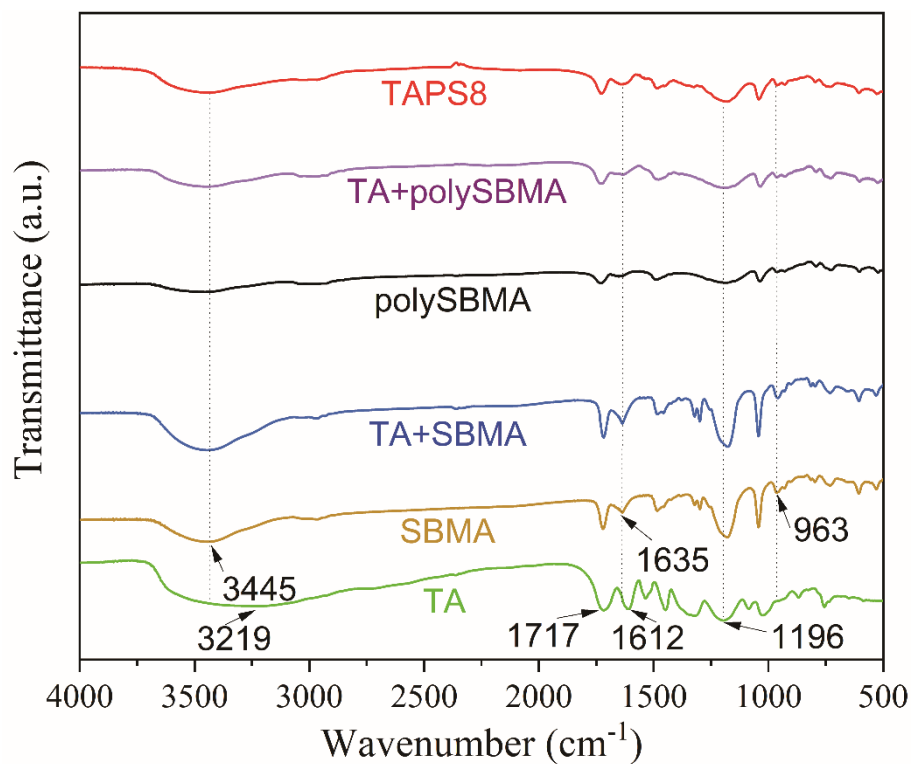


Figure S1. FTIR spectra of TA, SBMA monomer, mixture of TA and SBMA monomer (TA+SBMA), polySBMA, mixture of TA and polySBMA (TA+polySBMA), and TAPS8.

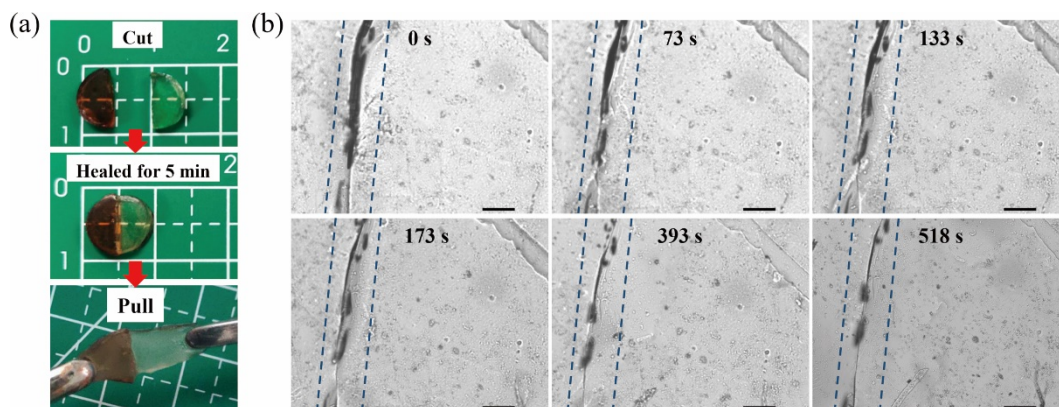


Figure S2. (a) Photos show two pieces of TAPS8 hydrogels (one stained by Congo red) healed together over 5 min. (b) Healing progress of a scratch on TAPS8 hydrogel within 9 min. Scale bars represent 50 μm .

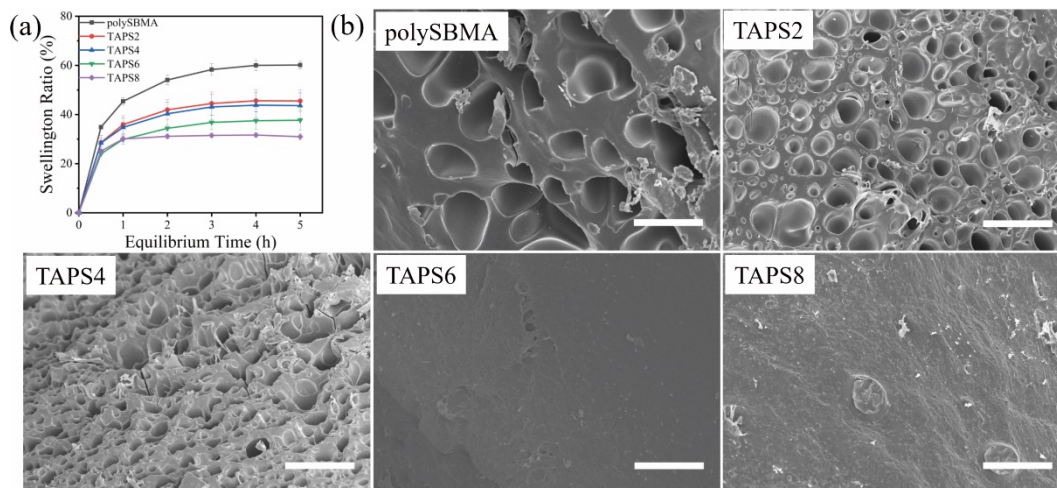


Figure S3. (a) Swelling behavior of polySBMA and TAPS hydrogels in deionized water over 5 h. (b) SEM images of the cross-section of polySBMA and TAPS hydrogels after swelling. Scale bars represent 50 μm .

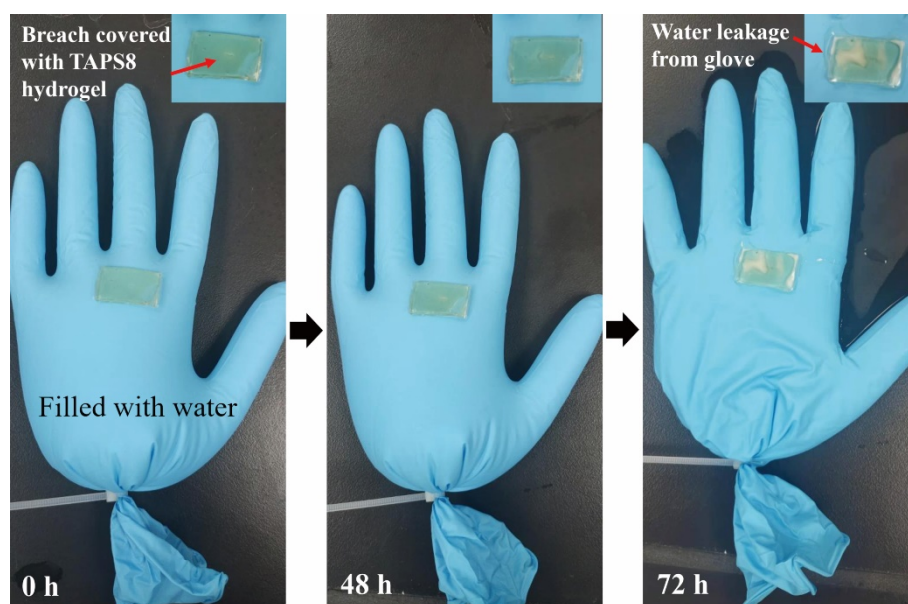


Figure S4. Photos of a TAPS8 hydrogel adhering over the breach of a nitrile glove prevented leakage of water for up to 48 h. Water leakage was observed at 72 h.

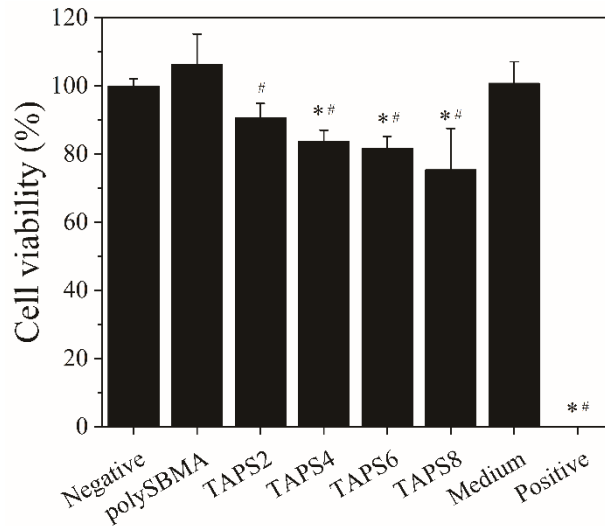


Figure S5. Viability of NIH/3T3 fibroblast after incubating in extracts of polySBMA and TAPS hydrogels for 24 h. * and # denote statistically significant difference with $p < 0.05$ compared to the negative control, and polySBMA group, respectively.

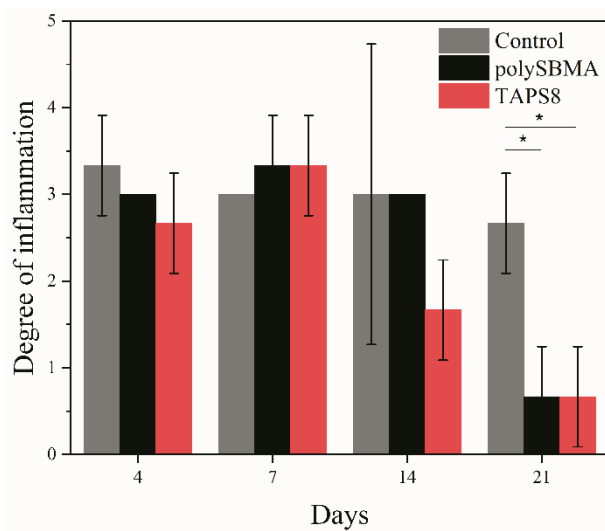


Figure S6. Degree of inflammation of wound beds evaluated by a blinded pathologist following the criteria: 0, normal; 1, very mild; 2, mild; 3, severe; 4, very severe. * denotes statistically significant difference with $p < 0.05$ compared to the control group.

Table S1. Irritation score of skin after treated with gauze (with PBS), polySBMA hydrogel and TAPS8 hydrogel over different time.

	Average irritation score				Response category
	1h	24h	48h	72h	
Gauze	0	0	0	0	Negligible
polySBMA	0	0	0	0	Negligible
TAPS8	0	0	0	0	Negligible