

## Supporting Information

### Biocompatible Recombinant Type III Collagen Enhancing Skin Repair and Anti-Wrinkle Effects

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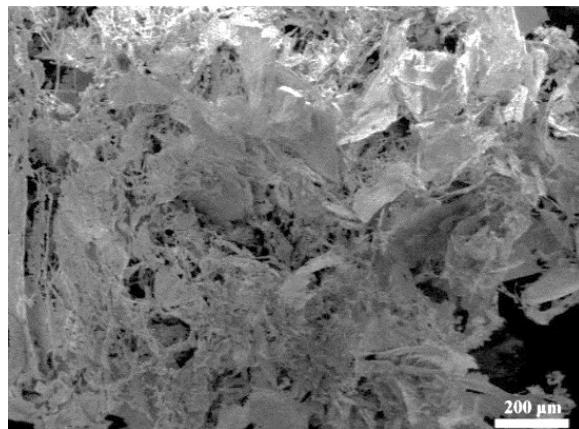
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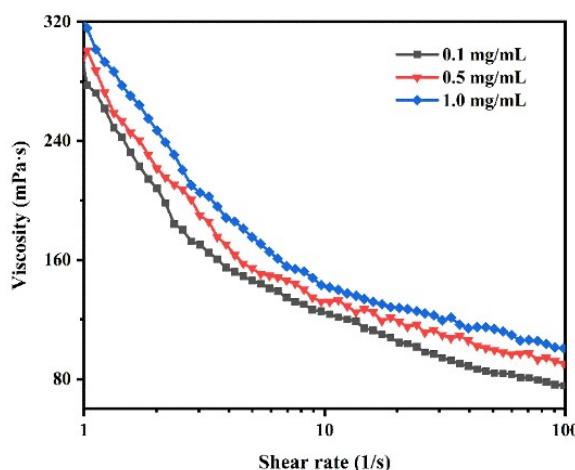
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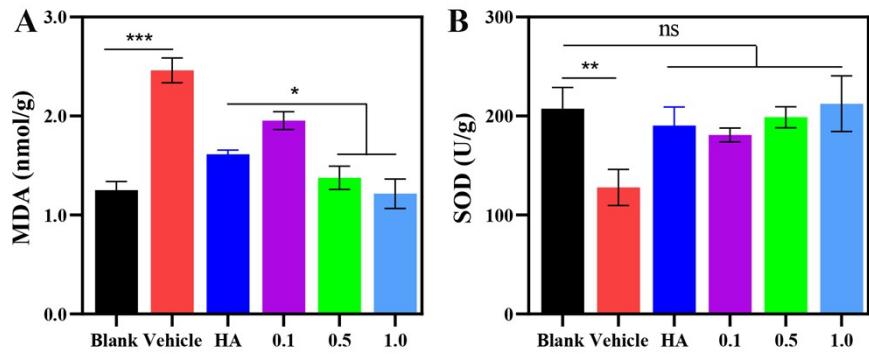
Email: [xiaojx@lzu.edu.cn](mailto:xiaojx@lzu.edu.cn); [hehuix@lzu.edu.cn](mailto:hehuix@lzu.edu.cn).



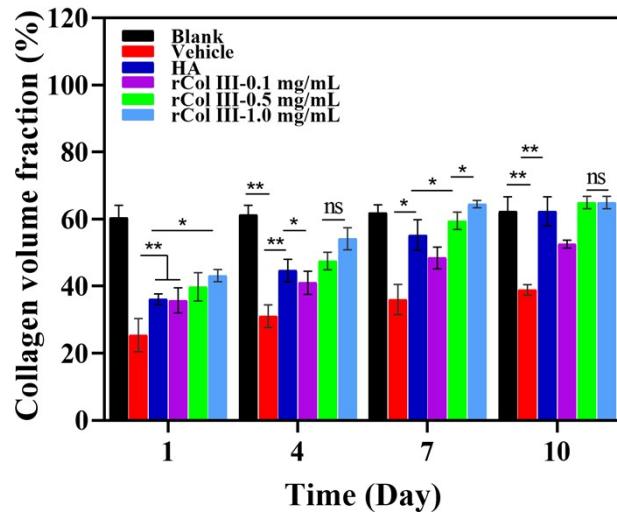
**Fig. S1** SEM image of the rCol III.



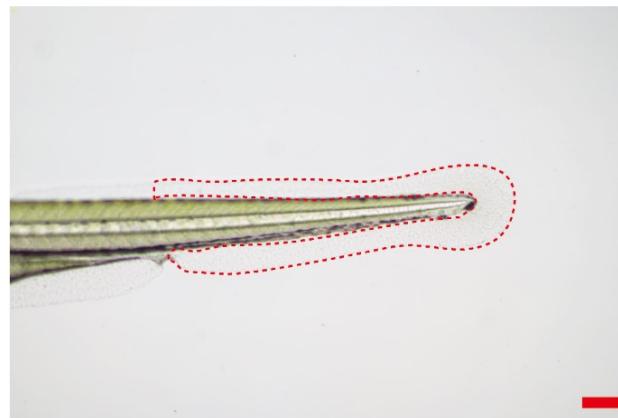
**Fig. S2** Rheological properties of rCol III.



**Fig. S3** The content of SOD(A) and MDA(B) of mice skin injection of different groups, including blank, vehicle, HA, rCol III-0.1, rCol III-0.1, and rCol III-1.0groups.



**Fig. S4** Quantifications of collagen content.



**Fig. S5** Typical plot of zebrafish anti-wrinkle efficacy of blank group. Scale bar: 200 nm.

**Table S1.** Quantitative calculation of the inhibition rate of caudal fin shrinkage in zebrafish.

Groups	Caudal fin			
	area (pixel <sup>2</sup> )	Mean ± SE	p-Value	Q(%)
Blank	1231264 ± 39074		<0.0001	-
Vehicle	458947 ± 68338		-	-
Polyphenols	774634 ± 90482		0.0141	40.88
rCol III-0.1 mg/mL	681055 ± 78462		0.0498	28.76
rCol III-0.5 mg/mL	857650 ± 97988		0.0046	51.62