

Supplementary Table 1. Criteria for the RA model construction

Index	Changes
Posture	Apathetic, activities decrease and slowly, joint deformation and cannot be loaded
Body temperature	Body temperature is gradually increased
Weight	Body weight is gradually increased after sensitization, but the rate of increase is gradually slow down
Diet	Diet reduced after each sensitization and then gradually restored
Joint diameter	Joint diameter is swollen obviously at the day of sensitization, and then restores to about twice the original

Supplementary Table 2. Methods of probe implantation

Steps Processes

- 1 step Rotatingly insert No. 5 injection needle to the place of drug delivery
 - 2 step Send a tear tube from the needle into the place of drug delivery
 - 3 step Pull out the needle and make the tear tube stay at the articular cavity
 - 4 step Microdialysis probe was inserted into the tear tube along the center of the
tear tube
 - 5 step Tear the tear tube to both sides and pull it out simultaneously
 - 6 step Make sure that the probe was stayed in the articular cavity
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Supplementary Table 3. The concentration of sinomenine in different groups at 14 h

Time	Sinomenine concentration (ng/mL; $\bar{x} \pm s$, n=4)			
	ST 36 group	GB 34 group	Knee-joint group	Oral group
0.5 h	110.07±22.68	98.5±24.42	147.32±10.12	208.85±25.12
1 h	239.26±32.72	215.85±34.79	292.84±20.30	472.10±33.74
2 h	433.55±34.09	336.77±33.99	490.89±62.10	988.20±51.39
3 h	560.93±45.01	440.84±46.53	583.52±51.32	1132.75±55.67
4 h	622.37±29.33	536.32±30.96	624.94±27.46	1198.26±46.32
5 h	695.40±35.32	586.12±29.99	560.79±50.71	890.02±45.66
6 h	709.73±49.70	622.07±28.87	394.04±38.57	621.20±21.77
7 h	677.09±38.83	582.81±30.71	355.57±41.20	369.08±24.11
8 h	659.99±18.88	561.02±29.90	417.10±54.10	279.05±24.67
9 h	645.95±33.36	488.70±28.39	372.40±27.23	253.81±49.07
10 h	624.08±42.21	494.60±35.70	428.10±61.98	242.55±29.90
11 h	570.22±33.10	431.27±28.86	383.57±49.88	206.32±23.49
12 h	545.99±51.76	396.25±59.52	415.53±60.20	193.73±40.01
13 h	488.94±34.43	378.99±32.65	329.09±32.21	160.81±25.65
14 h	469.23±24.45	344.32±29.87	305.43±35.65	150.99±25.89

Supplementary Figure 1. The drug package of sinomenine. The drug package was directly attached to the administration site

