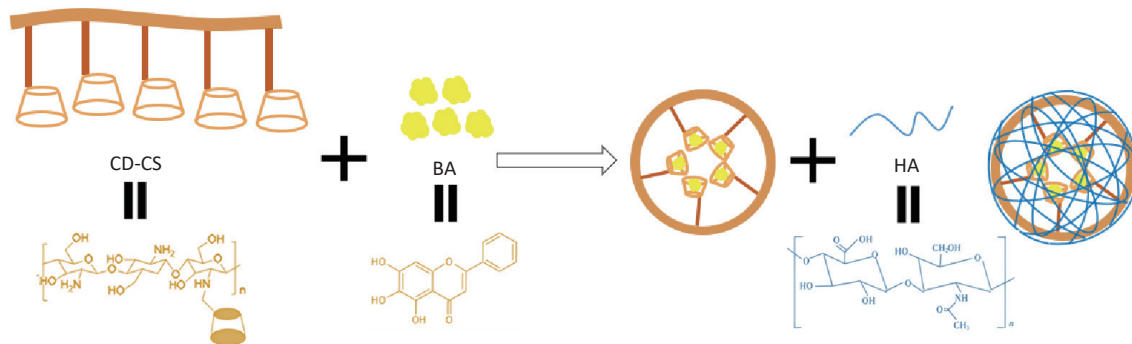
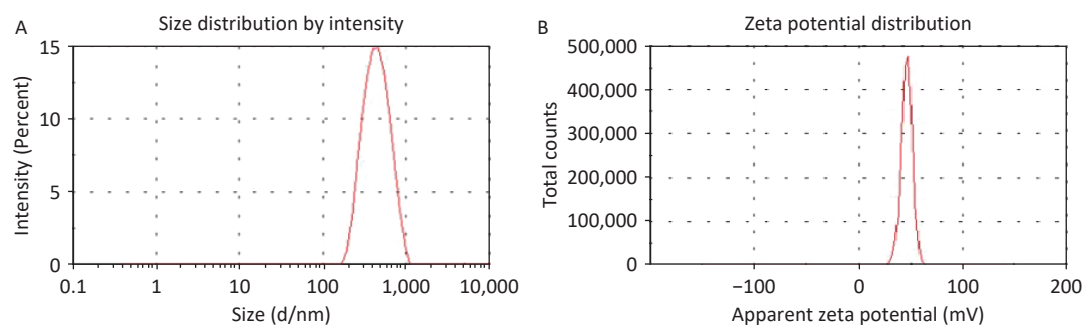
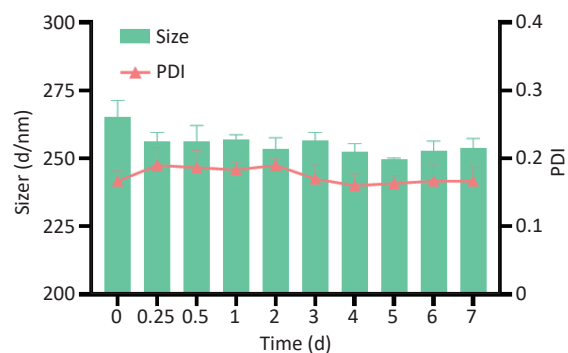




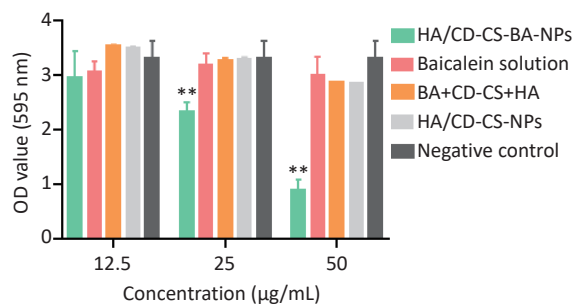
Supplementary Figure S1. Preparation of HA/CD-CS-BA-NPs.



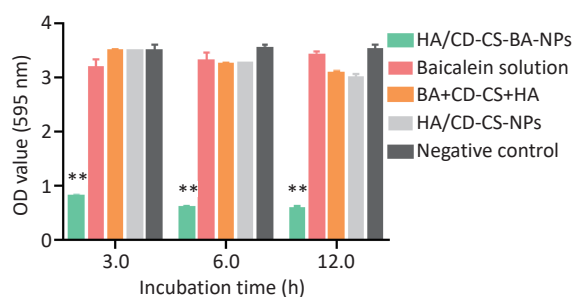
Supplementary Figure S2. Distribution diagram of the particle size (A) and Zeta potential (B) of HA/CD-CS-BA-NPs.



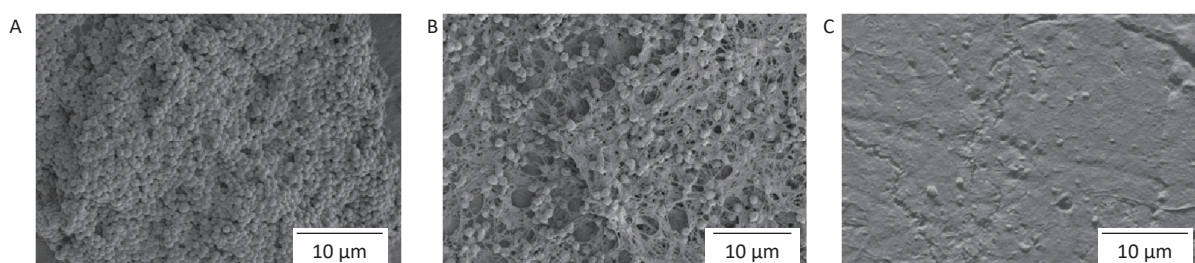
Supplementary Figure S3. Changes in particle size and PDI of HA/CD-CS-BA-NPs.



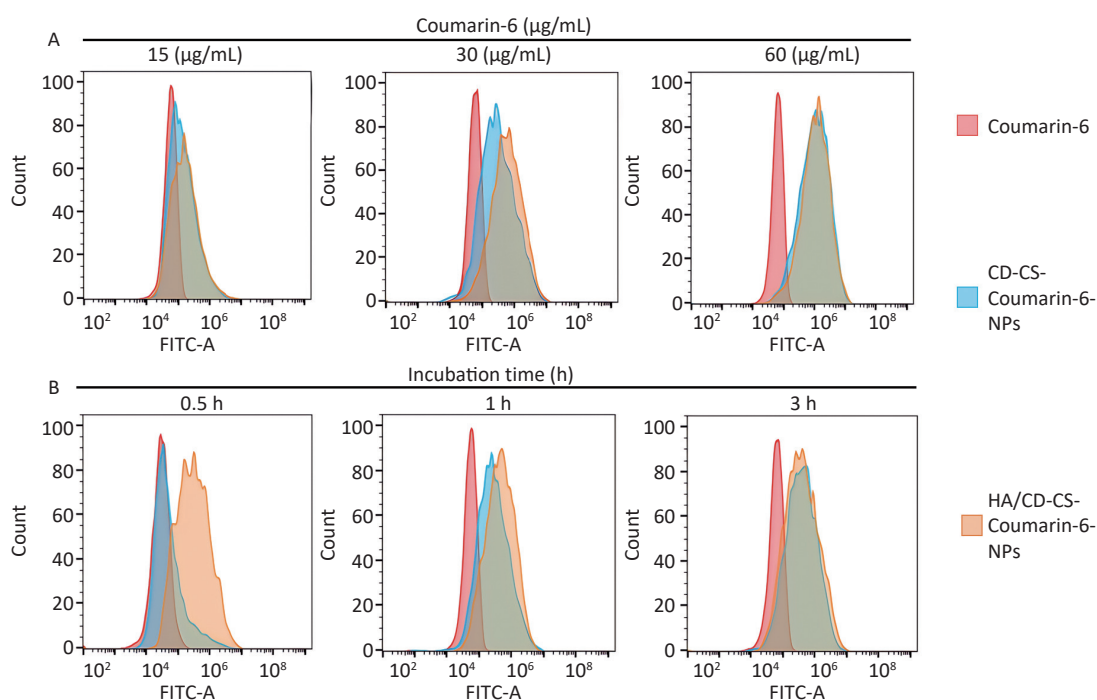
Supplementary Figure S4. Effects of different administration concentrations on biofilm elimination ($\bar{x} \pm s$, $n = 3$). ** $P < 0.01$ compared to negative control group.



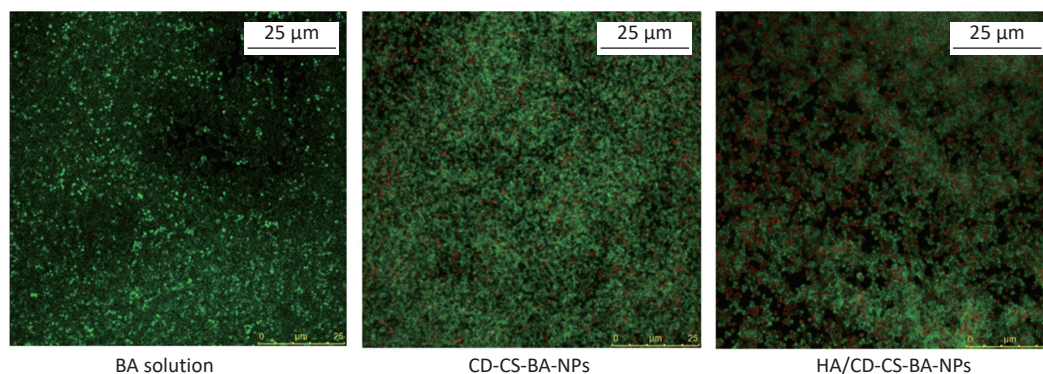
Supplementary Figure S5. Effects of different incubation times on biofilm elimination ($\bar{x} \pm s$, $n = 3$). ** $P < 0.01$ compared to negative control group).



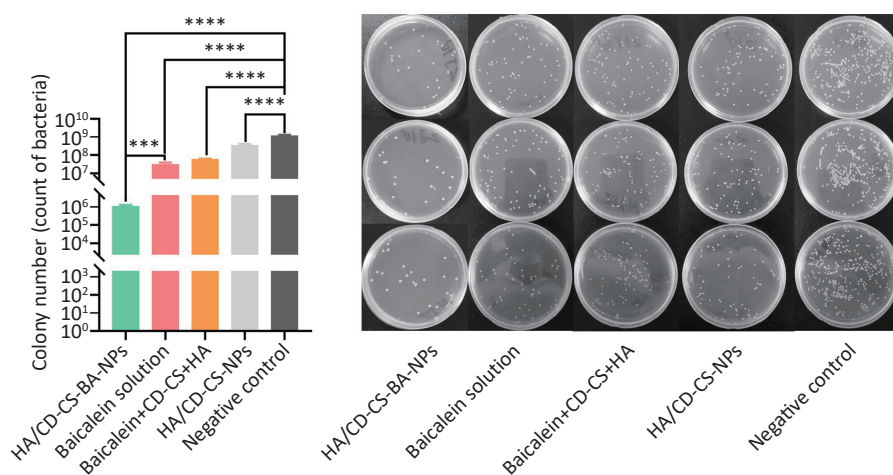
Supplementary Figure S6. SEM image of MRSA. (A) Model group, (B) BA slution trated group, (C) HA/CD-CS-BA-NPs treated group.



Supplementary Figure S7. The effect of different NPs on drug uptake by MRSA under FCM. The effect of different concentrations of the NPs on drug uptake by MRSA (A) and the effect of NPs incubation times on drug uptake by MRSA (B).



Supplementary Figure S8. NPs against MRSA biofilm bacteria under CLSM.



Supplementary Figure S9. Number of colonies in each group. *** $P < 0.001$, **** $P < 0.0001$ compared with the other group.

Supplementary Table S1. The determination of MIC

Concentration (μg/mL)	1	2	3	4	5	6	7	8	9
BA solution	200	100	50	25	12.5	6.25	3.13	1.56	0.78
	–	–	–	–	+	+	+	+	+
HA/CD-CS-BA-NPs	50	25	12.5	6.25	3.13	1.56	0.78	0.39	0.19
	–	–	–	+	+	+	+	+	+
Negative Control	0	0	0	0	0	0	0	0	0
	+	+	+	+	+	+	+	+	+
HA/CD-CS-NPs	0	0	0	0	0	0	0	0	0
	+	+	+	+	+	+	+	+	+
CD-CS, HA, BA (mixture)	50	25	12.5	6.25	3.14	1.56	0.78	0.39	0.19
	–	–	+	+	+	+	+	+	+

Note. “–” indicates that bacterial growth is inhibited and the medium is clear; “+” indicates that there is bacterial growth and the medium is turbid.