Supplementary Information (SI) for Biomaterials Science.
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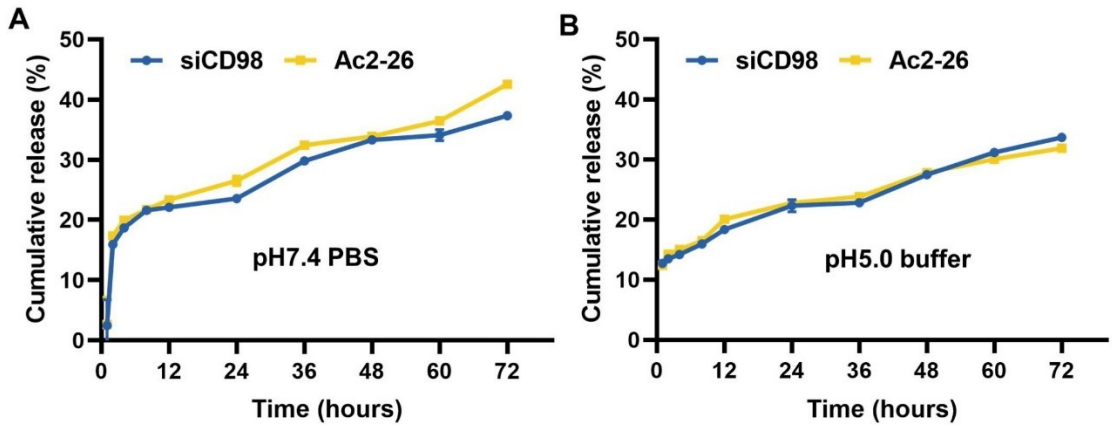
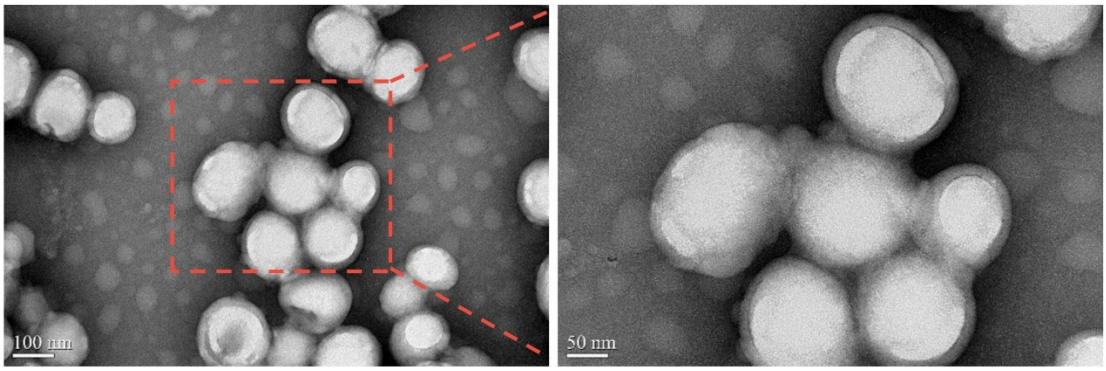
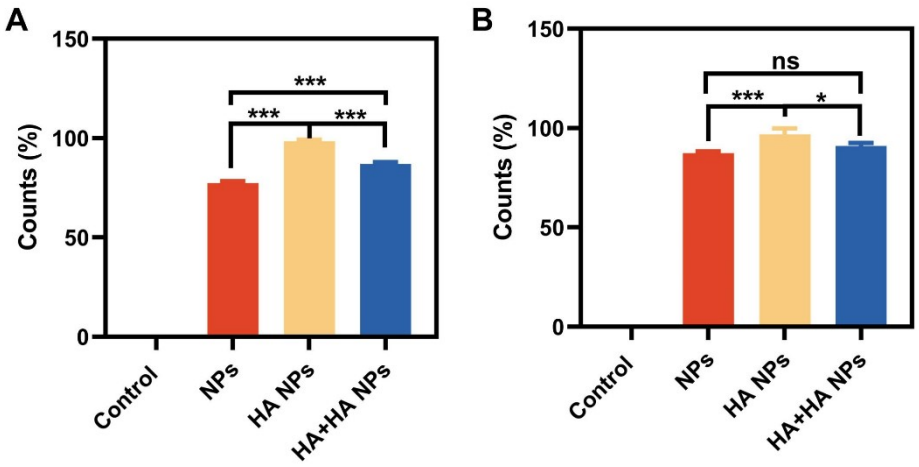
Supporting information



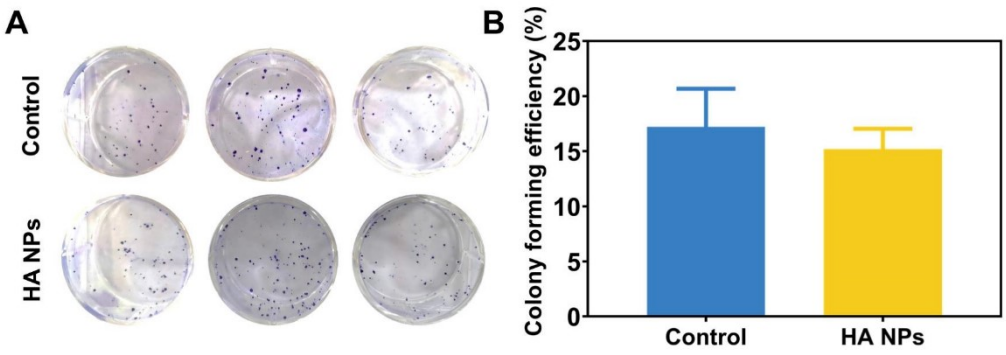
Supplementary Figure 1. The cumulative release profile of siCD98 and Ac2-26 from nano-bomb nanoparticles in different pH PBS. (A). The cumulative release profile of siCD98 and Ac2-26 in pH 7.4 PBS. (B). The cumulative release profile of siCD98 and Ac2-26 in pH 5.0 buffer.



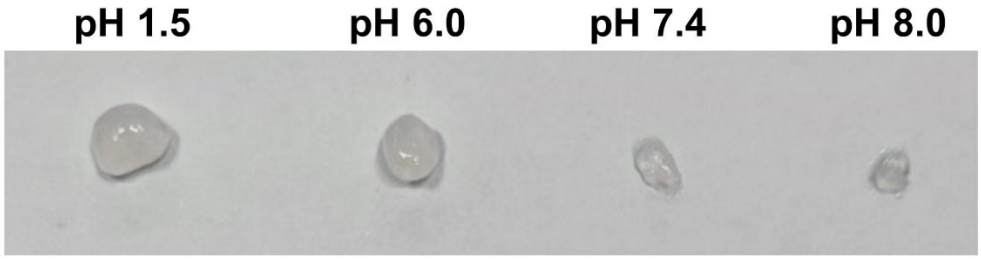
Supplementary Figure 2. TEM images of HA NPs in PBS.



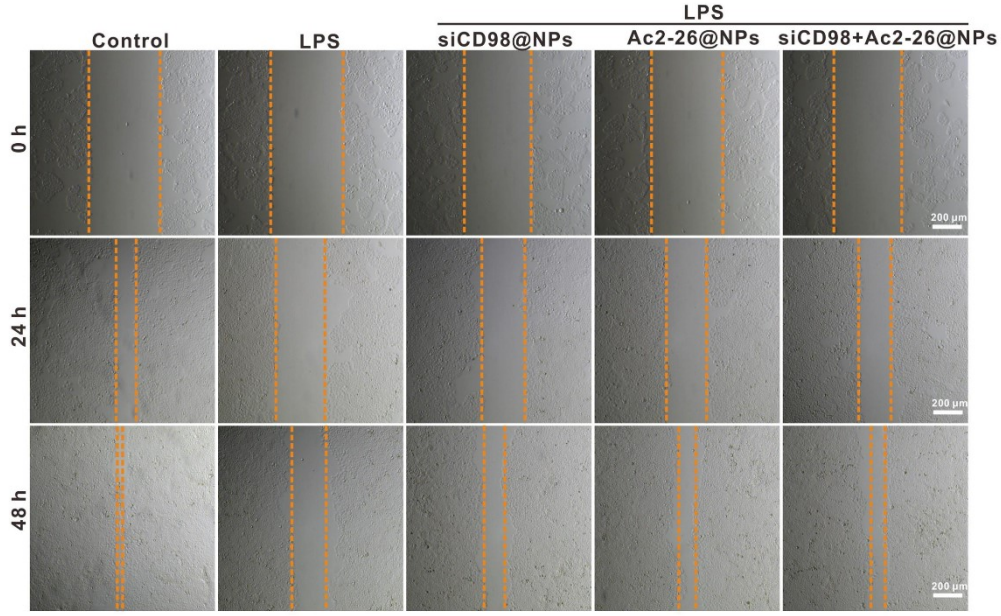
Supplementary Figure 3. Statistical analysis of the detection of cellular uptake of different nanoparticles by flow cytometry. (A). Statistical analysis of Colon-26 cells uptake efficiency of NPs, HA NPs and free HA+HA NPs by flow cytometry. (B). Statistical analysis of RAW 264.7 cells uptake efficiency of NPs, HA NPs and free HA+HA NPs by flow cytometry. n = 3, *$P < 0.05$, and ***$P < 0.001$, ns" represents no significant difference.



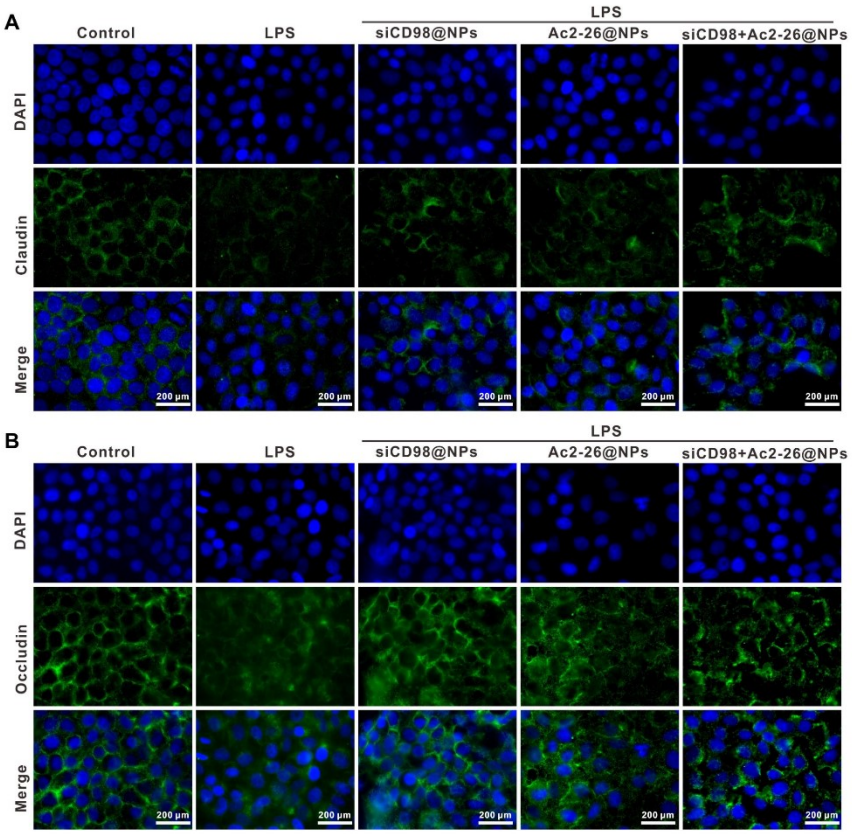
Supplementary Figure 4. Colony formation assay was used to evaluate the biocompatibility of HA NPs. (A). Crystal violet stain of HT-29 cells with treated with HA NPs (n = 3). (B). Statistical analysis of the clone formation rate of HT-29 cells using ImageJ software.



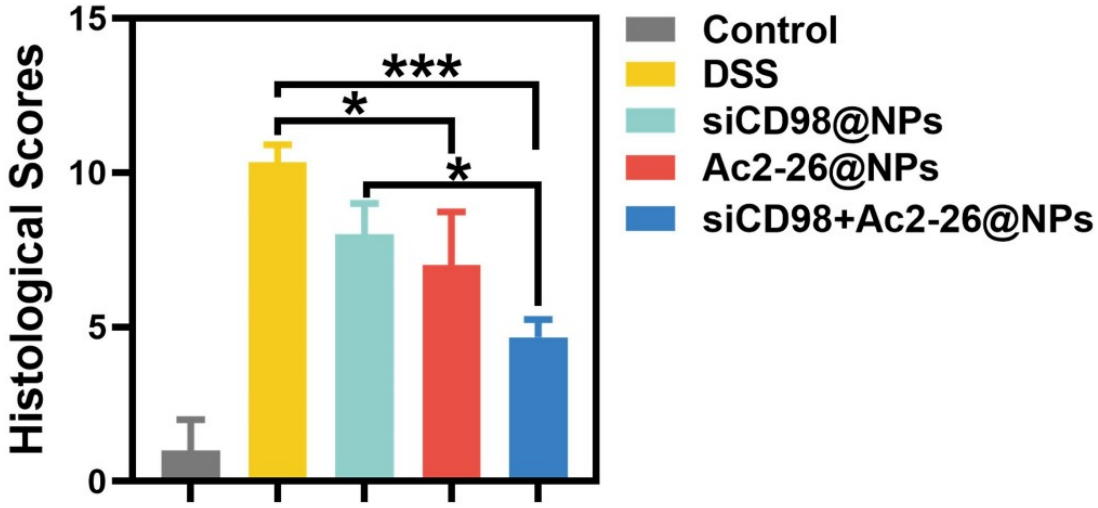
Supplementary Figure 5. The gelling ability of chitosan/alginate hydrogel in different pH buffer solutions. 100 μL chitosan solution and sodium alginate were mixed with chelating solution (30 mM Na_2SO_4 and 70 mM $CaCl_2$) in different pH buffer (pH 1.5, 6.0, 7.4, 8.0), then collected respectively.



Supplementary Figure 6. Wound healing assay analysis of Caco2 cells after different treatments in different times. Caco-2 cells were incubated with siCD98@NPs and/or Ac2-26@NPs for 0 h, 24 h, 48 h. And LPS (500 ng/mL) was incubated with cells at the same time (n = 3).



Supplementary Figure 7. Immunofluorescence image of tight junction protein in Caco-2 cells. Caco-2 cells were incubated with siCD98@NPs and/or Ac2-26@NPs for 12 h. Then LPS (500 ng/mL) was added to the cells and incubated for a further 4 h (n = 3). Photographs were taken using an inverted fluorescence microscope. (A). The fluorescence images of Claudin in Caco-2 cells with different treatments (n = 3). (B). The fluorescence images of Occludin in Caco-2 cells with different treatments (n = 3).



Supplementary Figure 8. Histopathological scoring of colonic tissue in different treatment groups of mice. n = 3, *$P < 0.05$, and ***$P < 0.001$.

Table S1. Primers used for Real-time PCR.

Gene name	Forward primer (5'-3')	Reverse primer (5'-3')
CD98	GAGGACAGGCTTTTGATTGC	TCCAGGCTTTGGGCATCA
TNF-alpha	AGGCTGCCCCGACTACGT	GACTTTCTCCTGGTATGAGATAGCAA A
IL-6	AGGCTGCCCCGACTACGT	TTGCCATTGCACAACTCTTTTC
IL-1beta	TCGCTCAGGGTCACAAGAAA	CATCAGAGGCAAGGAGGA AAAC
iNOS	CCCTTCCGAAGTTTCTGGCAGC	CCAAAGCCACGAGGCTCTGACAGCC
CD86	TCAGTCAGGATGGGAGTGGTA	ATCCAAGAGCCATTCCTACCT
MR	CATGAGGCTTCTCTTGCTTCTG	TTGCCGTCTGAACTGAGATGG
GAPDH	TGTGTCCGTCGTGGATCTGA	TTGCTGTTGAAGTCGCAGGAG