

## Supplementary Materials

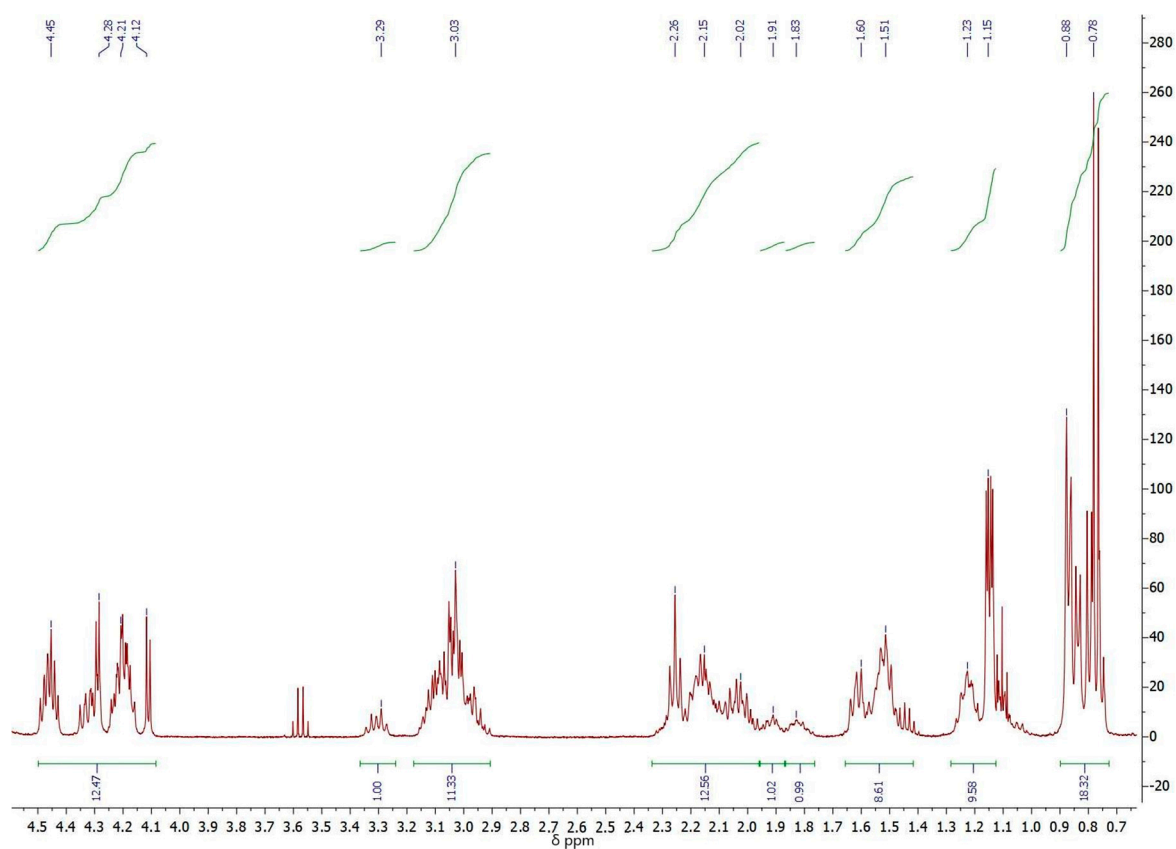


Figure S1.  $^1\text{H}$  NMR spectrum of colistin (400 MHz,  $\text{D}_2\text{O}$ )  $\delta$  0.74-0.88 (m, 18H), 1.1-1.28 (m, 9,6H), 1.42-1.64(m, 8H), 1.83(m, 1H), 1.91 (m. 1H), 1.96-2.28(m, 12H), 2.92-3.15(m, 11H), 3,29(m, 1H), 4.10-4.50(m, 12H).

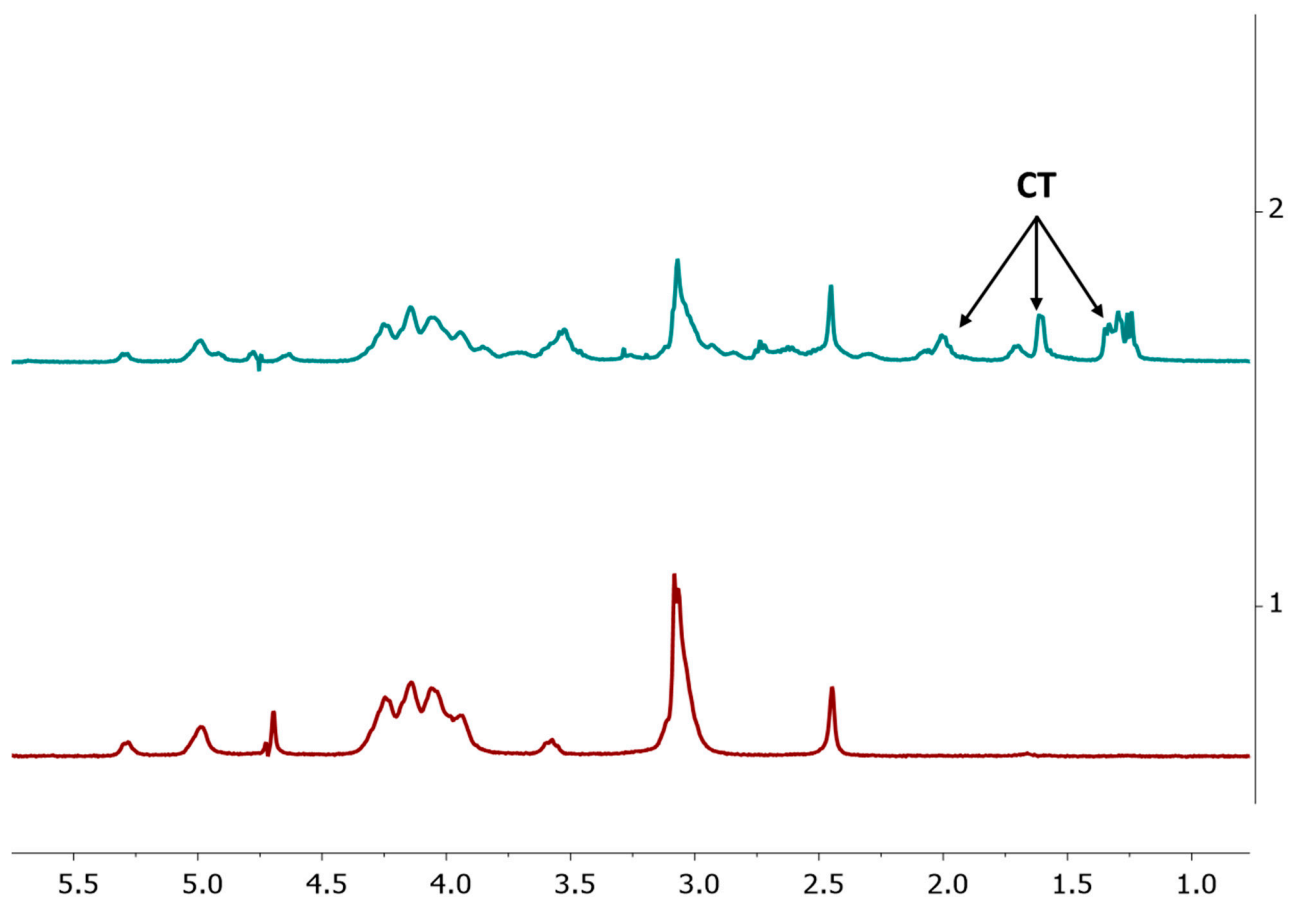
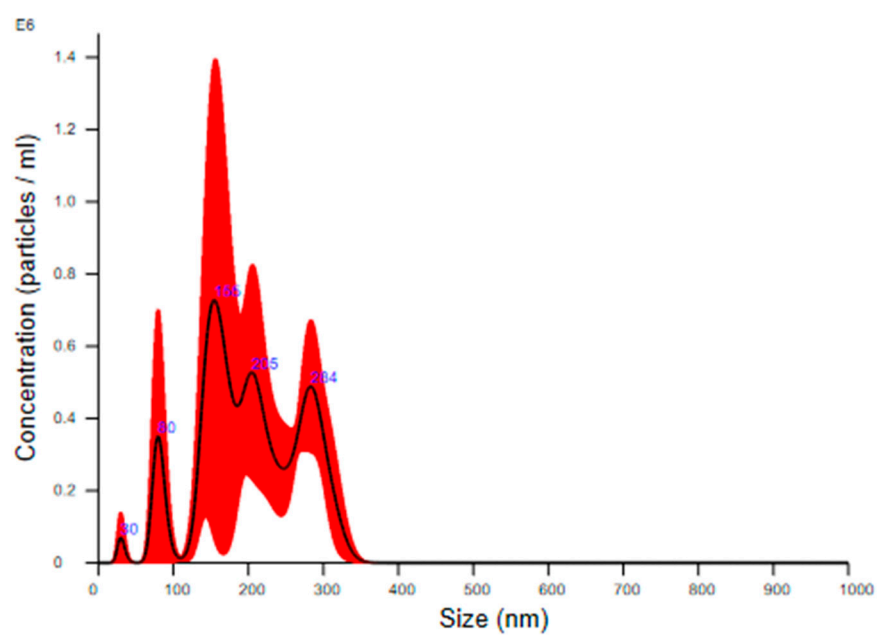
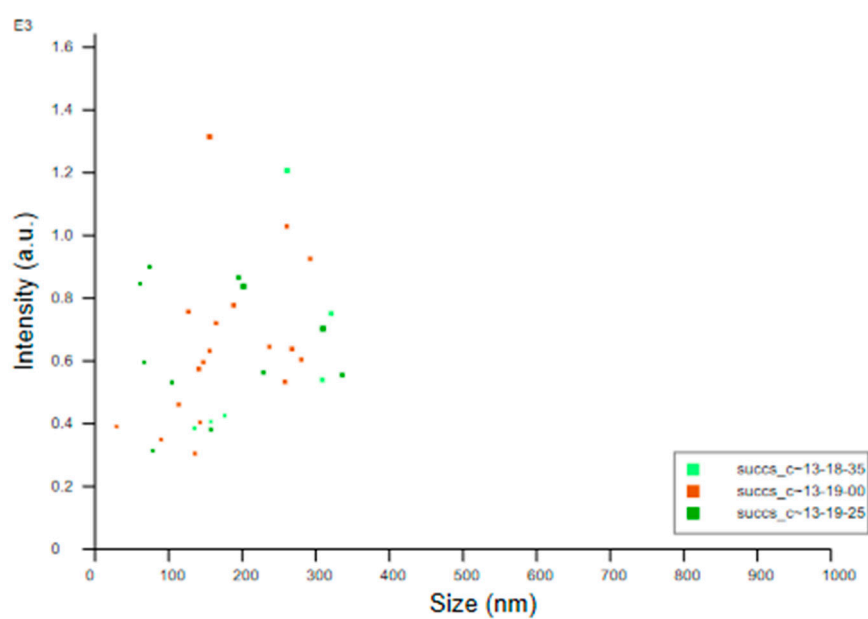


Figure S2. Stacked <sup>1</sup>H NMR spectra of succinyl chitosan (1) and succinyl chitosan-colistin conjugate (2).



(a)



(b)

Figure S3. Mean particle size (a) and particle size distribution (b) of SucCS-CT-10 according to the NTA method.

Table S1. Viability of LPS-treated THP-1 cells after 24 h in vitro co-cultivation with SucCS-CT-10 conjugate. Data are presented as mean  $\pm$  SD ( $n \geq 6$ ); the data are shown as the percentages of viable cells.

LPS stimulation only $94,5 \pm 0,2$			
<b>Concentration</b>	<b>SucCS</b>	<b>CT</b>	<b>SucCS-CT-10</b>
1000 $\mu\text{g/mL}$	$93,6 \pm 0,4$	$69,7 \pm 3$ ***	$85 \pm 2$ ***
500 $\mu\text{g/mL}$	$93,5 \pm 0,5$	$86,1 \pm 0,8$ ***	$93,6 \pm 0,5$
100 $\mu\text{g/mL}$	$93,2 \pm 0,7$	$93,2 \pm 0,4$	$93,4 \pm 0,6$
10 $\mu\text{g/mL}$	$93,3 \pm 0,6$	$94,0 \pm 0,4$	$93,8 \pm 0,6$
1 $\mu\text{g/mL}$	$93,4 \pm 0,6$	$93,8 \pm 0,5$	$93,9 \pm 0,5$

\*\*\* – the differences with negative control (THP-1 cell without stimulation) were significant with  $p < 0.001$ , according to non-parametrical Mann–Whitney U test.