

## Supporting Information:

# Disulfide Molecule-Vancomycin Nanodrug Delivery System Efficiently Eradicates Intracellular Bacteria

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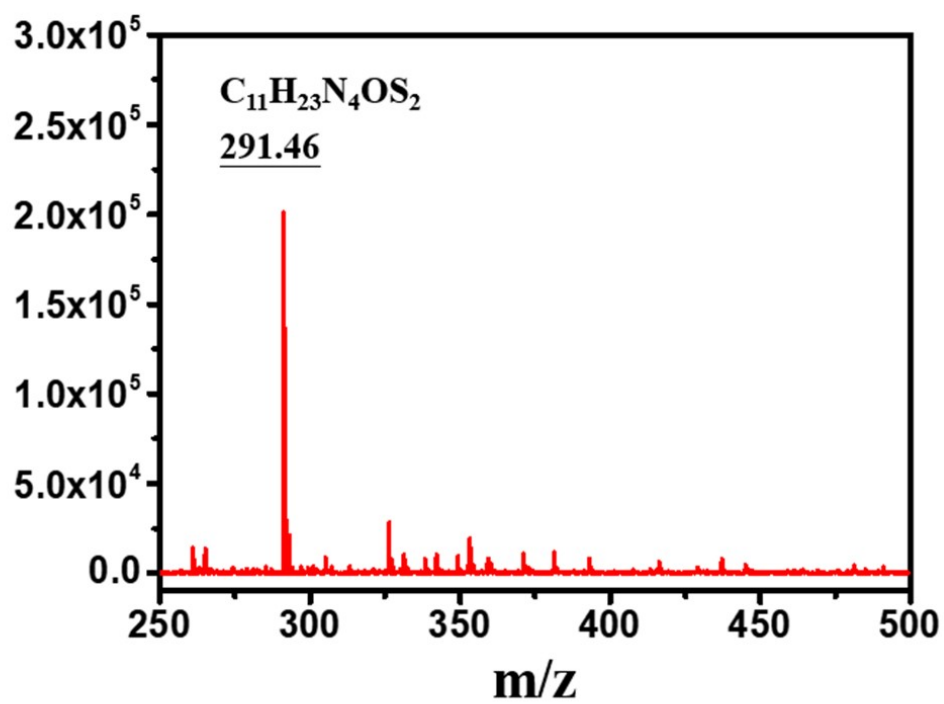
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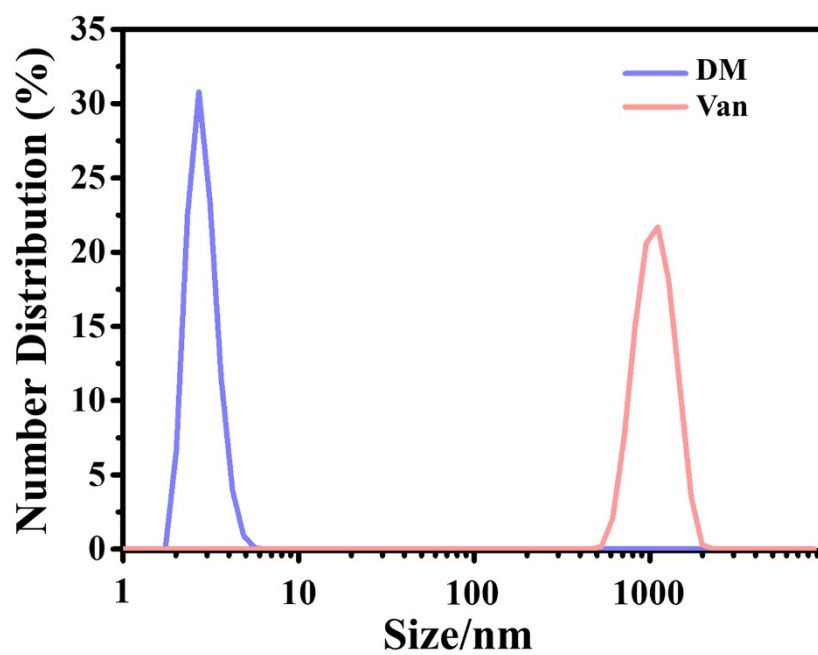
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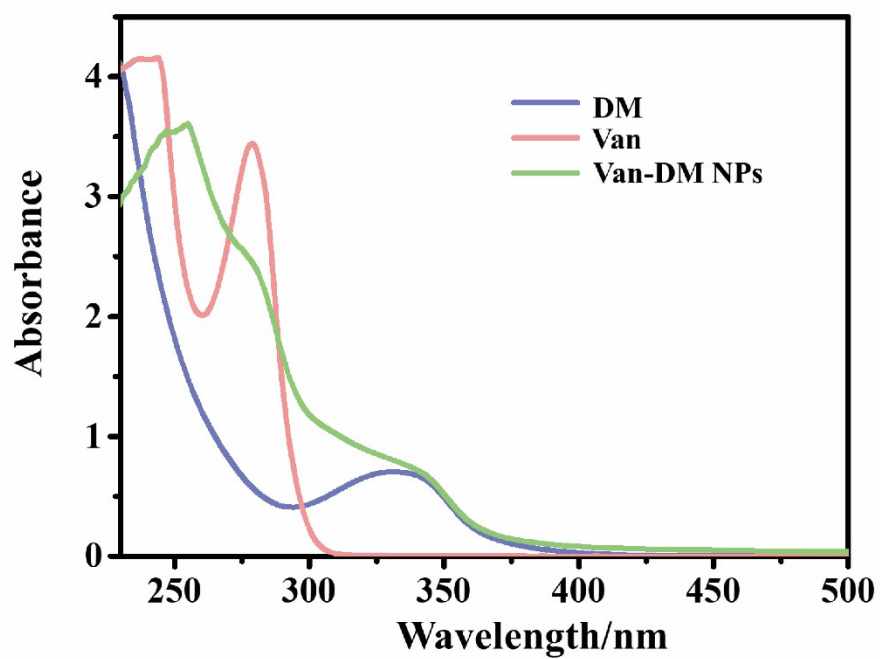




**Figure S2.** MALDI-TOF MS analysis of disulfide molecule (DM) in DMF.



**Figure S3.** DLS images of Van and DM, showing the size change of the assembled Van-DM NPs.



**Figure S4.** UV-vis spectra of Van, DM and Van-DM NPs.

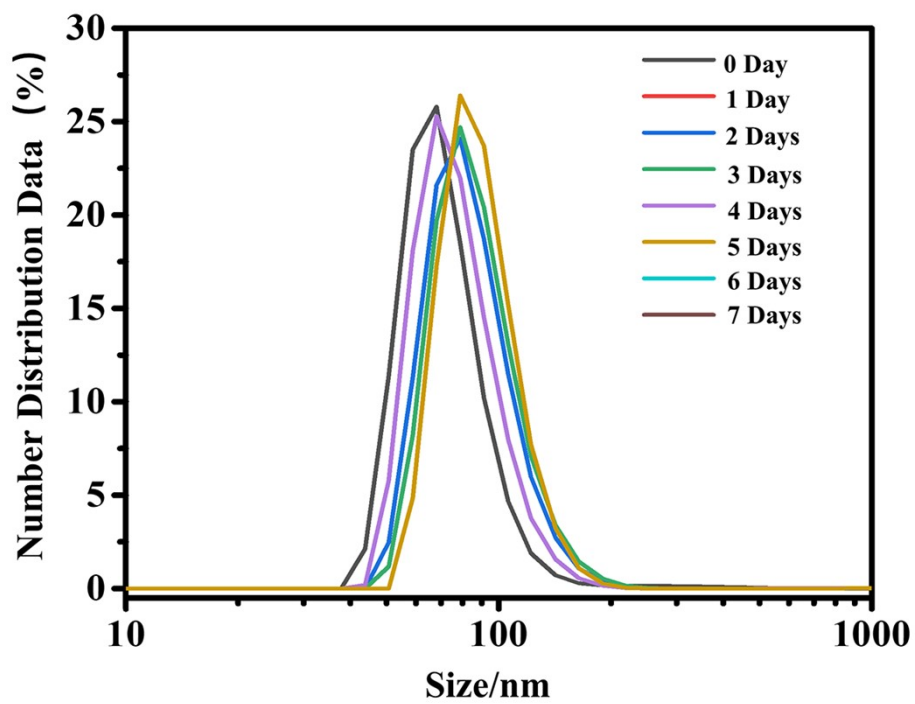
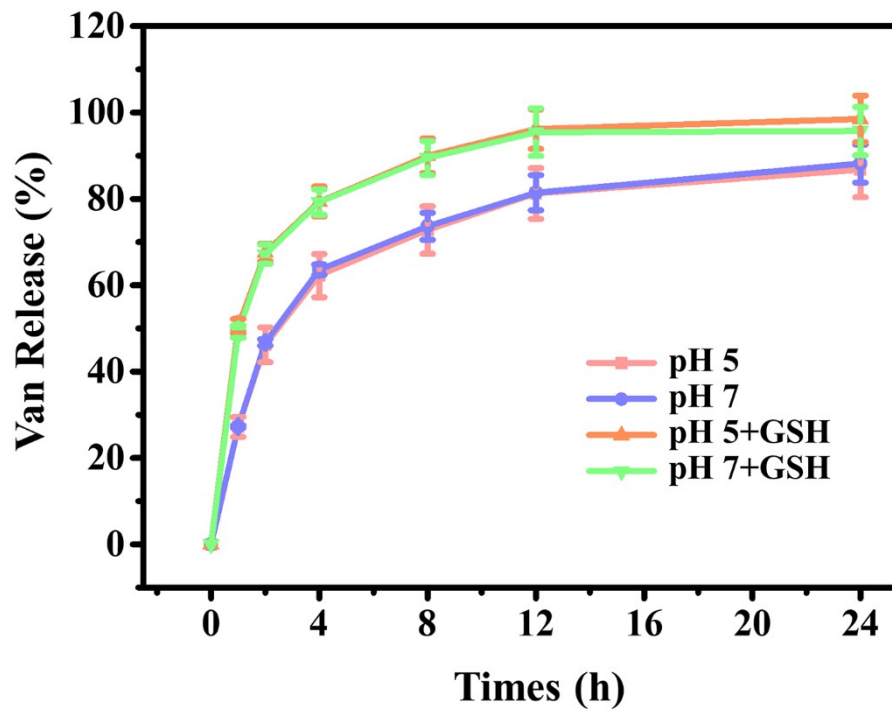
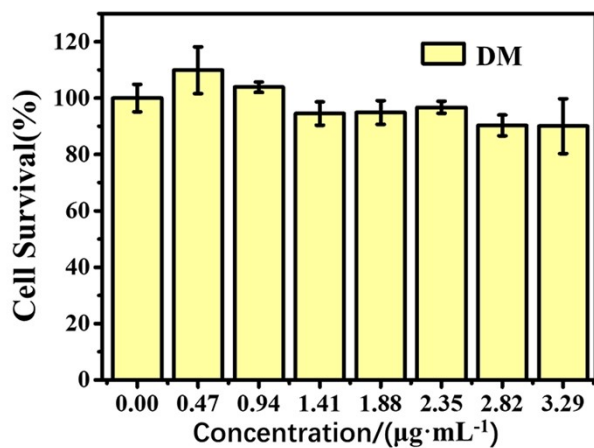


Figure S5. Stability of Van-DM NPs in solution for 7 days.

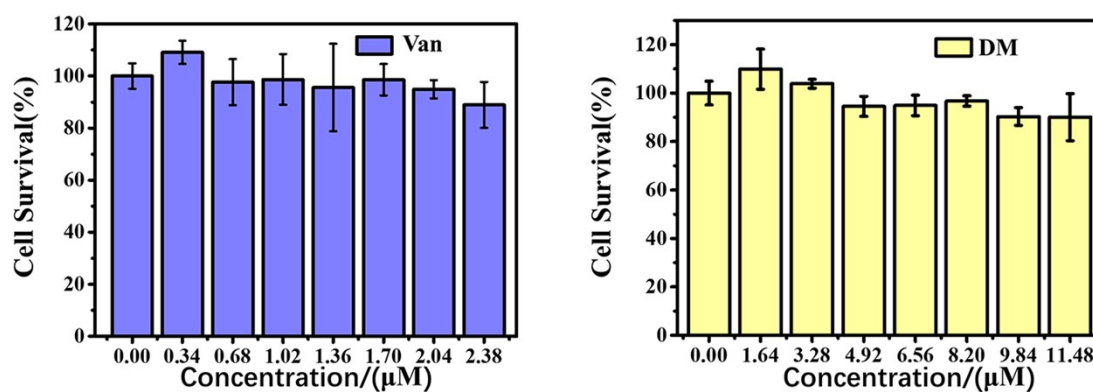


**Figure S6.** The drug release behavior of vancomycin from Van-DM NPs in different physiological conditions, including the presence or absence of glutathione (GSH). After co-incubation with 5 mM GSH for 10 min, Van-DM NPs rapidly released the vancomycin due to the thiol-assisted disassembly.

A

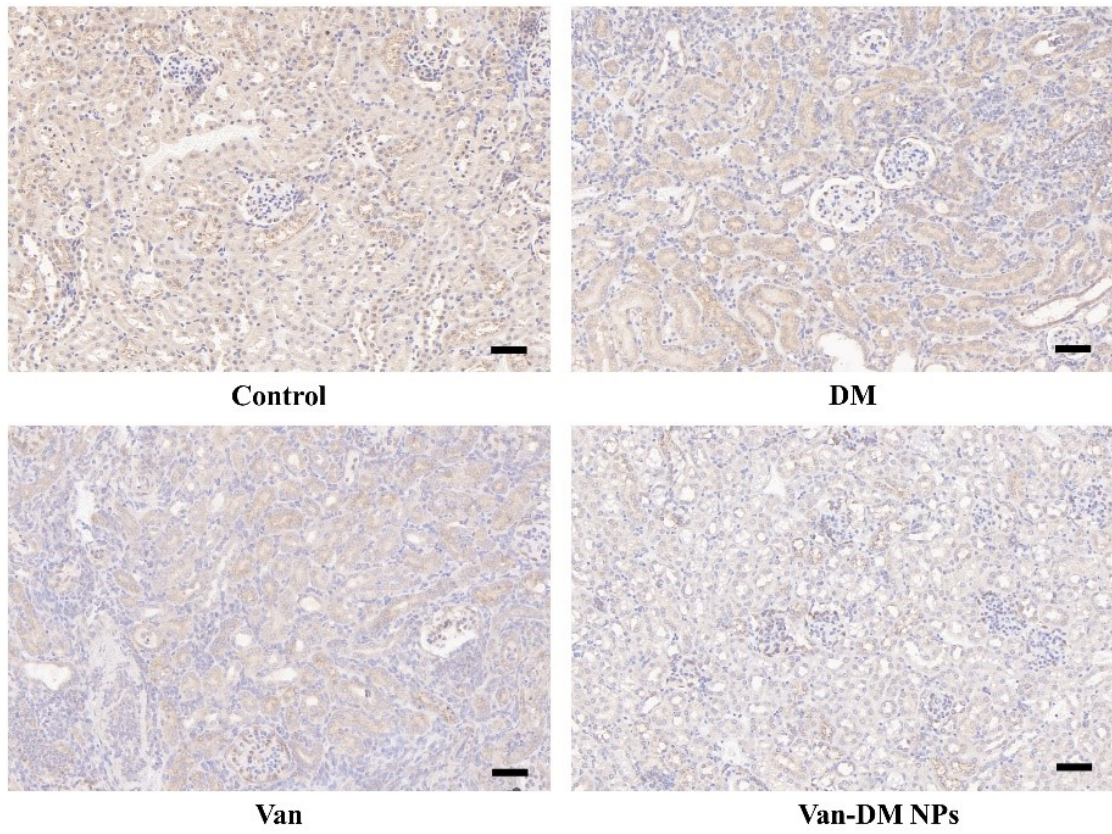


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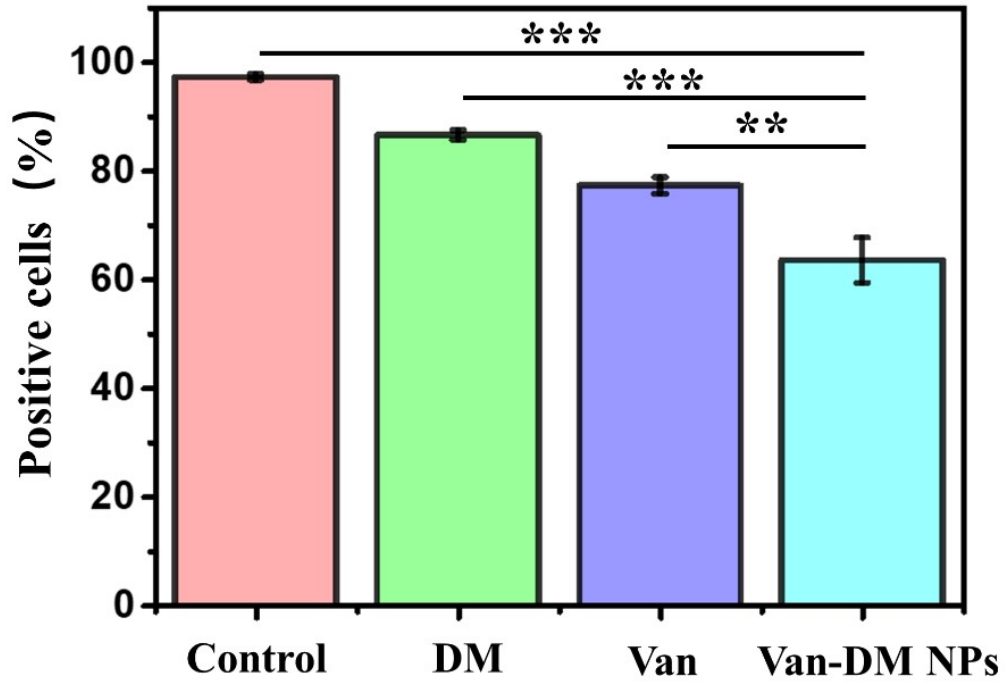


**Figure S7.** (A) The cytotoxicity of DM to Raw 264.7 cell with the increasing mass concentration of DM. (B) The cytotoxicity of Van and DM to Raw 264.7 cells with the increasing molar concentrations of Van and DM, respectively.





**Figure S8.** Immunohistochemical microscope fluorescence image of IL-6 positive cells of kidney. Scale: 50  $\mu$ m.



**Figure S9.** The percentage of inflammatory cytokine IL-6 positive cells.

**Table S1.** DLS results of Van-DM NPs

DM/mM	DM:Van	Size/nm
3.5	2.4	73
5.25	3.6	120
7	4.8	77
8.75	6.0	40
10.5	7.2	400

**Table S1.** DLS results of Van-DM NPs prepared from different molar ratios of DM:Van