

Fabrication of zwitterionic and pH-responsive polyacetal dendrimers for anticancer drug delivery

Yaqiang Wang,^{‡a,b} Da Huang,^{‡c} Xing Wang,^{*a,b,d} Hong Shen,^a Fei Yang^{a,b} and Decheng Wu^{*a,b}

^a Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China. E-mail: wangxing@iccas.ac.cn; dcwu@iccas.ac.cn; Tel: +86 10 82611492

^b University of Chinese Academy of Sciences, Beijing 100049, China

^c College of Biological Science and Engineering, Fuzhou University, Fuzhou 350116, China.

^d State Key Laboratory of Molecular Engineering of Polymers, Fudan University, Shanghai 200433, China.

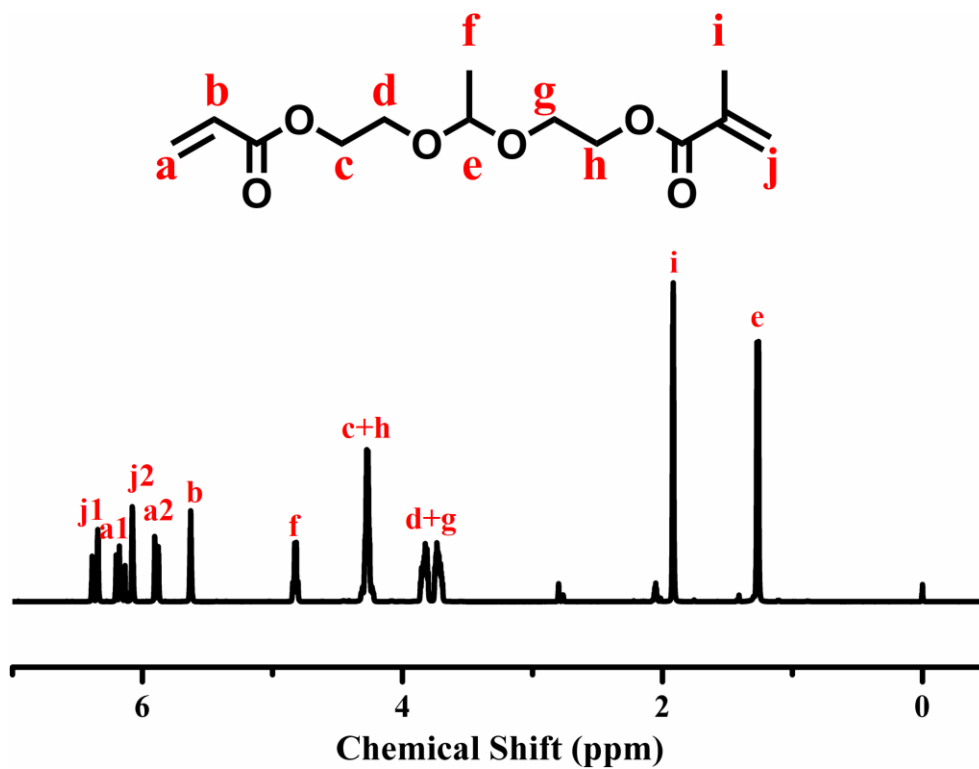


Fig. S1 ^1H NMR spectrum of acetal monomer (AEEEM).

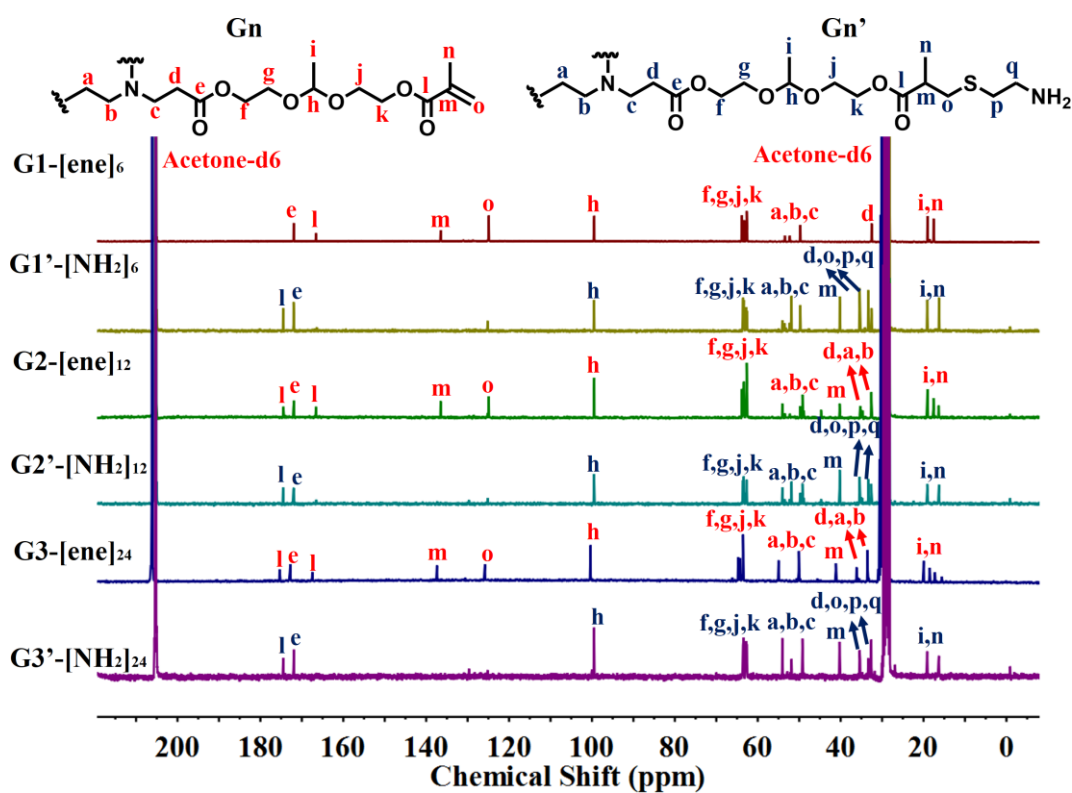


Fig. S2 ^{13}C NMR spectra of G1-G3 polyacetal dendrimers.

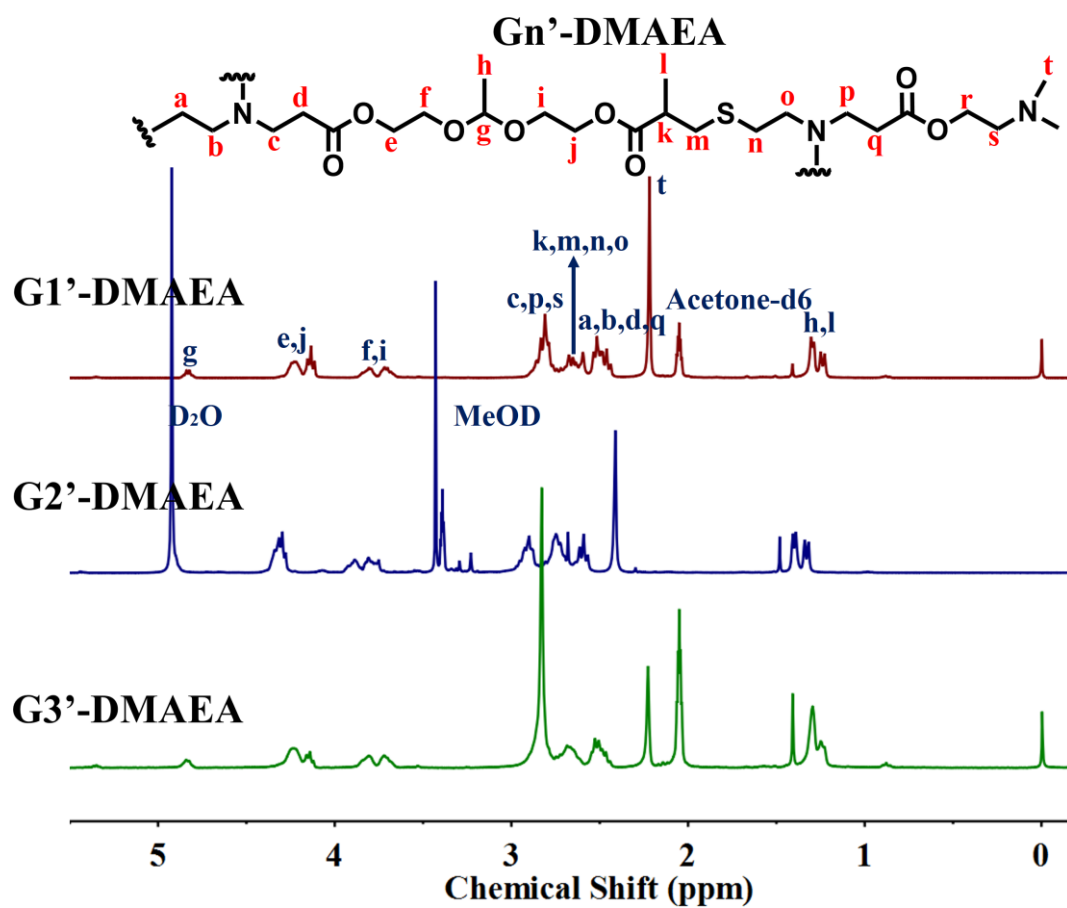


Fig. S3 ¹H NMR spectra of Gn'-DMAEA.

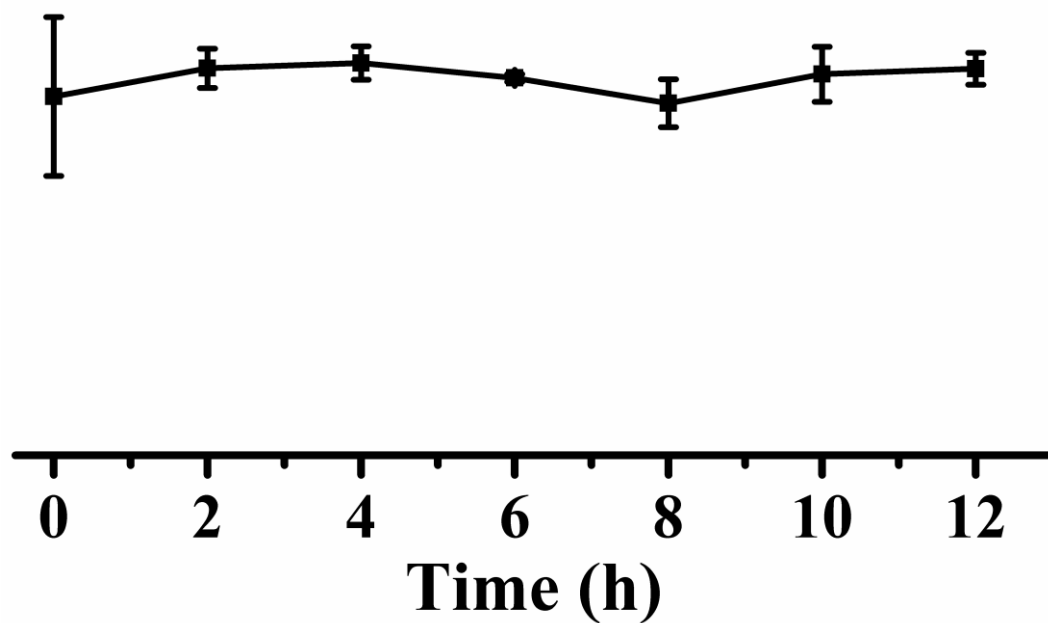


Fig. S4 Resistance protein absorption behavior of G3'-SB.

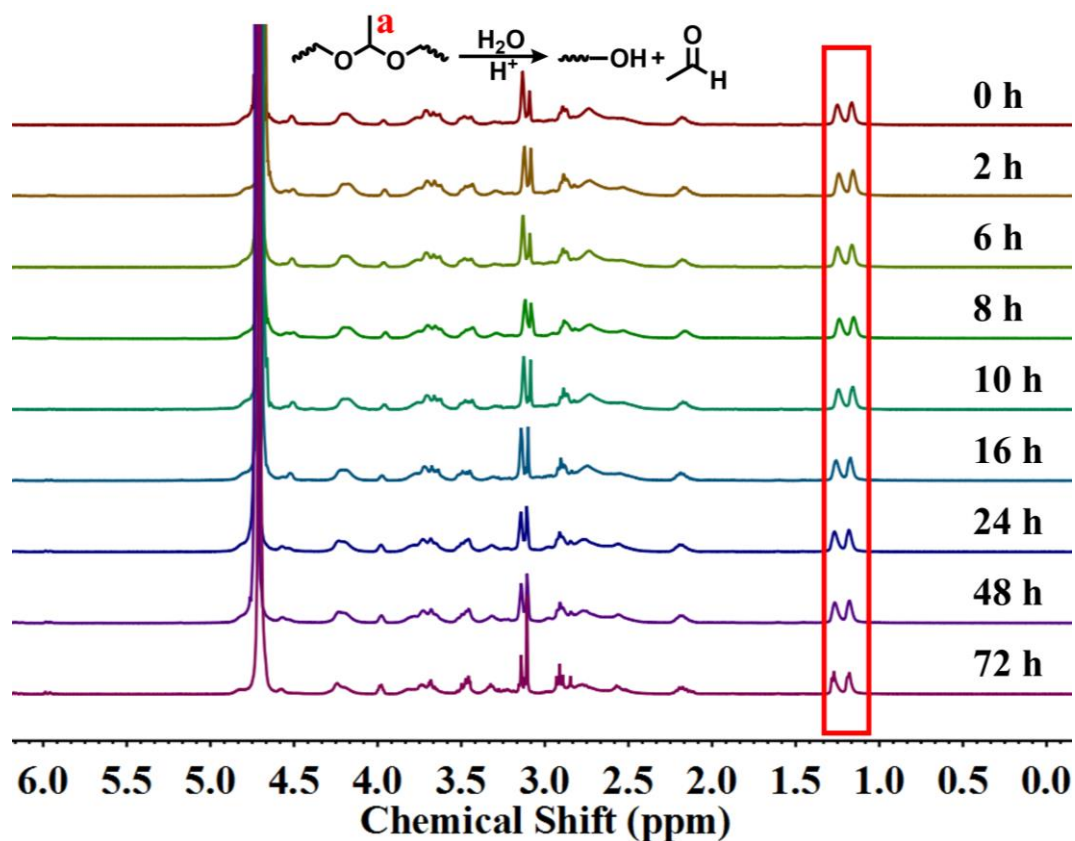


Fig. S5 Comparison of the ^1H NMR spectra recorded in situ for degradation of G3'-SB at pH=5.0.

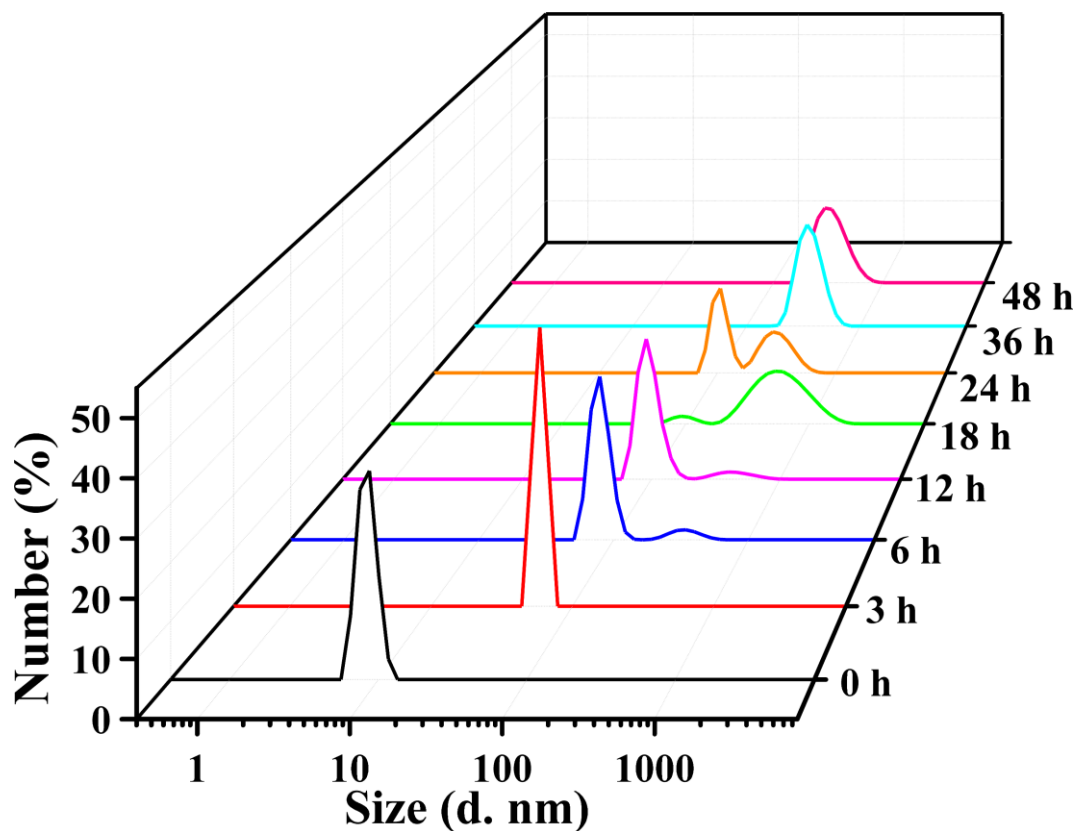


Fig. S6 Comparison of the DLS profiles recorded in situ for degradation of G3'-SB at pH=5.0.

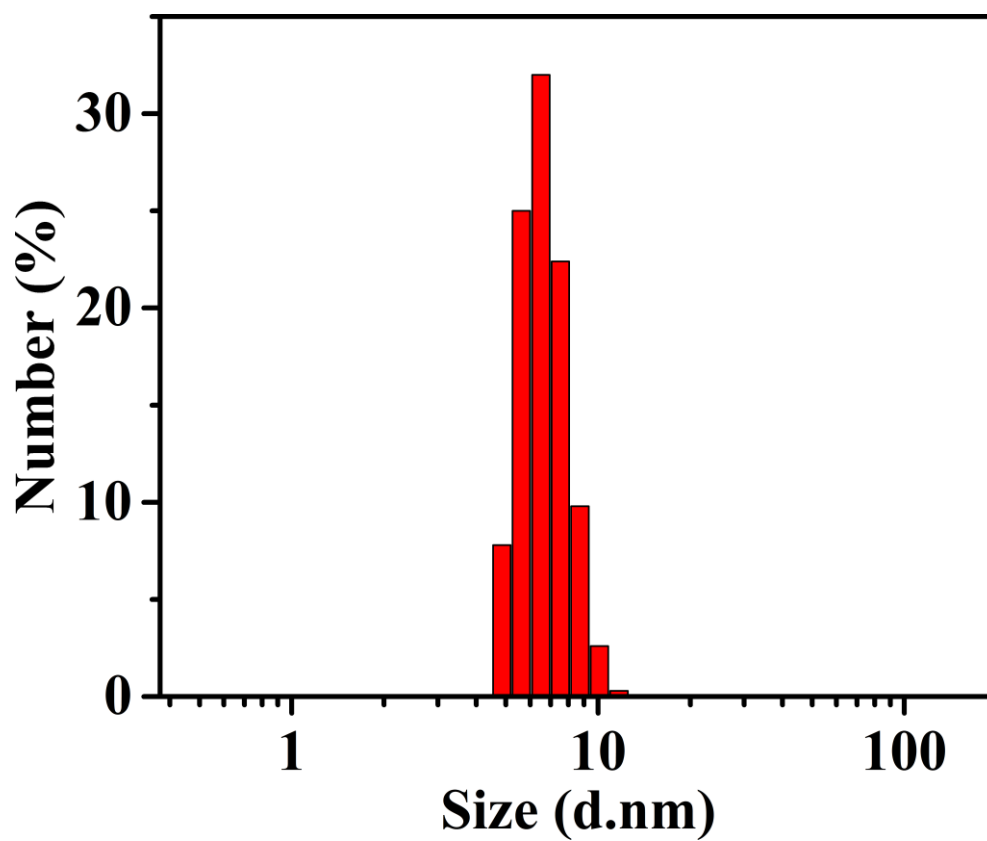


Fig. S7 Size of G3'-SB@DOX measured by DLS.

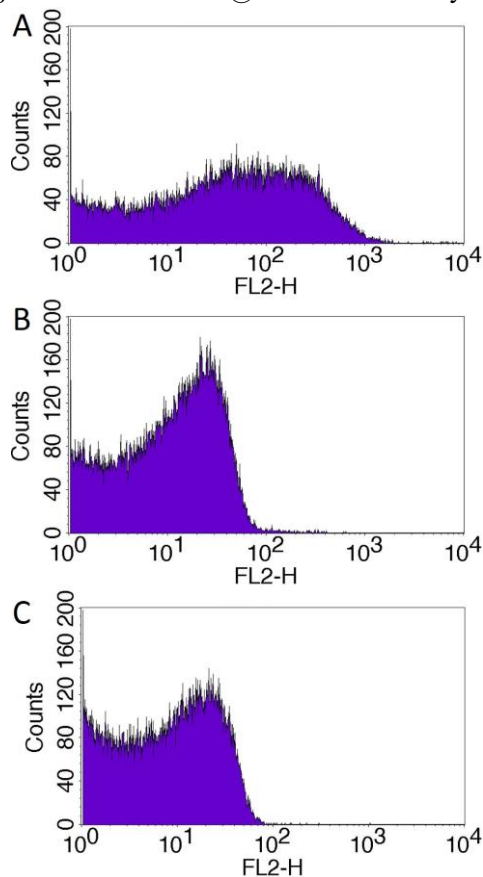


Fig. S8 Flow cytometer analysis of G3'-SB@DOX nanoparticles incubated with HeLa cells under (A) pH=4.0, (B) pH=6.0 and (C) pH=8.0 buffer solutions.

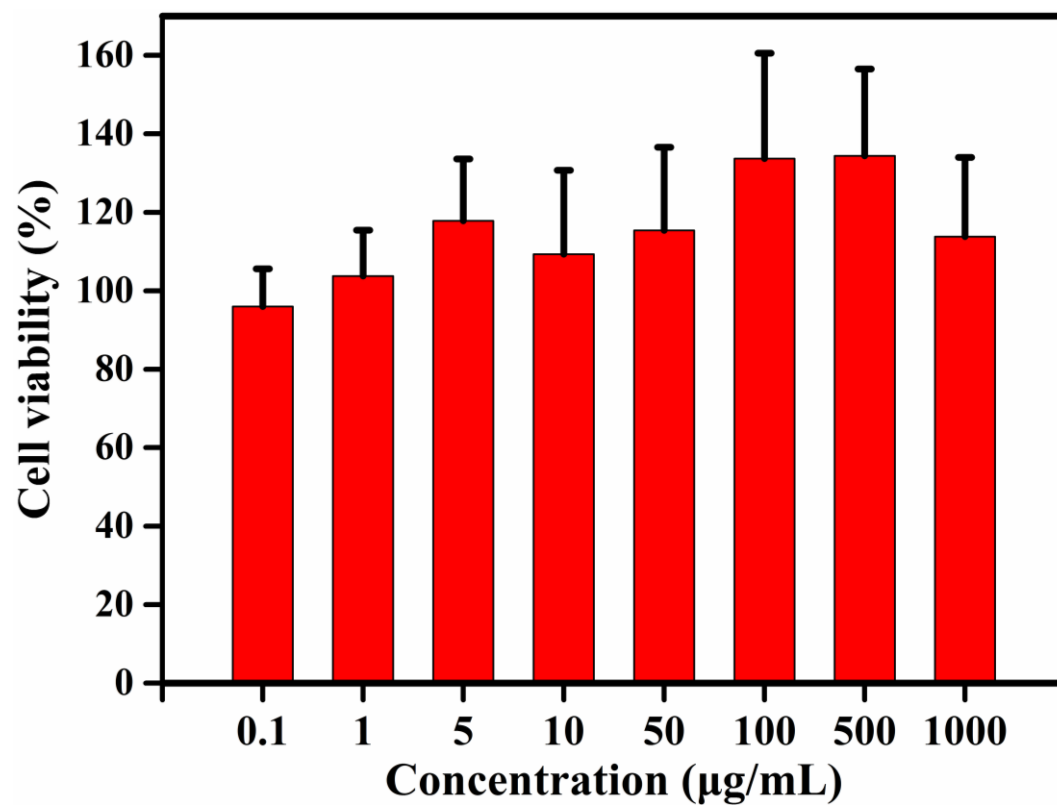


Fig. S9 *In vitro* cytotoxicity of G3'-SB against MC3T3-E1 cells.