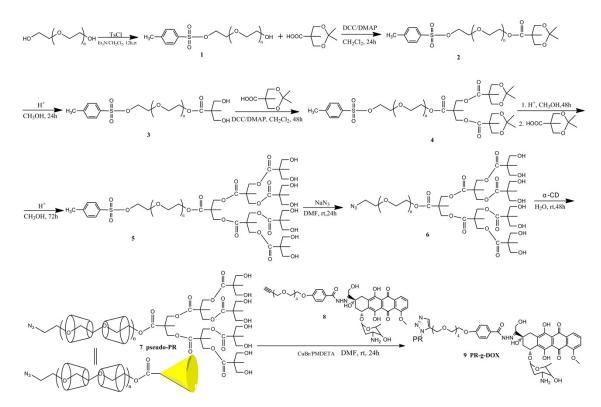
Supporting Information

pH-Responsive Dendritic Polyrotaxane drug-polymer conjugates forming nanoparticles as efficient drug delivery system for cancer therapy

Yang Kang^a, Xiao-Mei Zhang^a, Sheng Zhang^{b*}, Li-Sheng Ding^a and Bang-Jing Li^{a*}

^a Key Laboratory of Mountain Ecological Restoration and Bioresource Utilization, Chengdu Institute of Biology, Chinese Academy of Sciences, Chengdu 610041, China, Tel: +86-28-82890646. Fax: (+86)28-82890646. E-mail: libj@cib.ac.cn (B. Li);

^b State Key Laboratory of Polymer Materials Engineering, Polymer Research Institute of Sichuan University, Sichuan University, Chengdu 610065, China, Tel, Fax: +86-28-85400266. E-mail: zslbj@163.com (S. Zhang).



Scheme S1 The synthesis pathway of the dendritic-polyrotaxane drug conjugate.

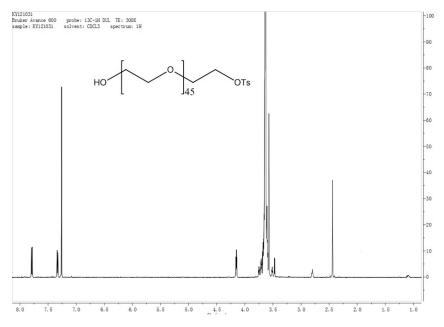


Figure S1 ¹H NMR spectrum of compound 1 (solvent: CDCl₃).

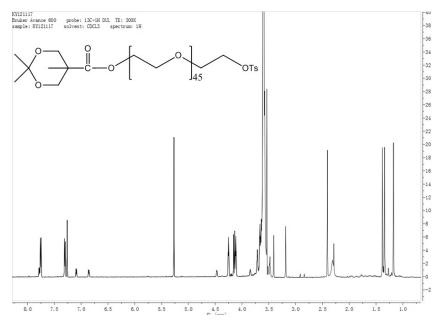


Figure S2 ¹H NMR spectrum of compound 2 (solvent: CDCl₃).

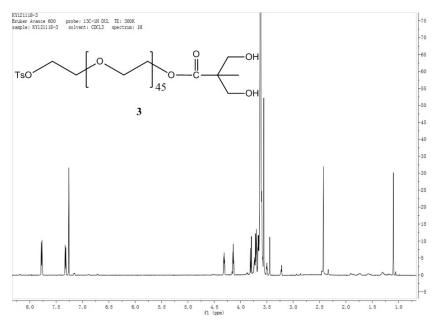


Figure S3 ¹H NMR spectrum of compound 3 (solvent: CDCl₃).

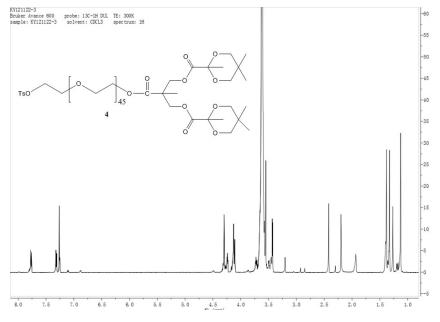


Figure S4 ¹H NMR spectrum of compound 4 (solvent: CDCl₃).

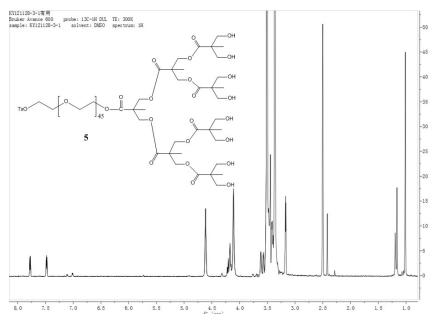


Figure S5 ¹H NMR spectrum of compound 5 (solvent: DMSO-d₆).

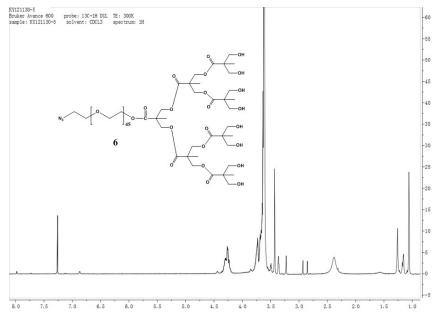


Figure S6 ¹H NMR spectrum of compound 6 (solvent: CDCl₃).

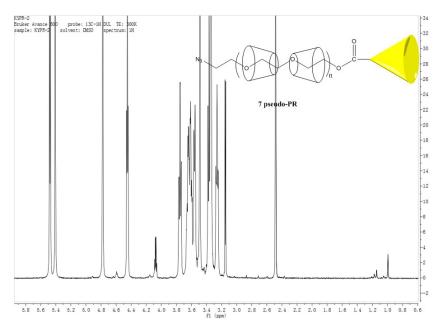


Figure S7 ¹H NMR spectrum of compound 7 (solvent: DMSO-d₆).

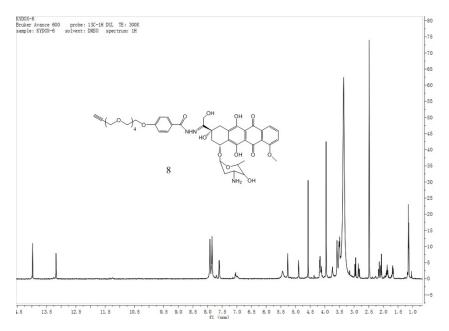


Figure S8 ¹H NMR spectrum of compound 6 (solvent: DMSO-d₆).

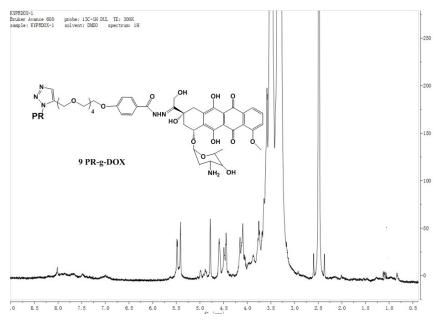


Figure S9 ¹H NMR spectrum of compound 9 (solvent: DMSO-d₆).

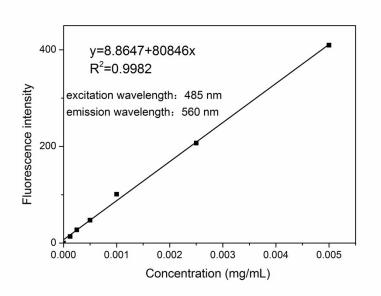


Figure S10 Standard curve plotted by the emission at 630 nm of the standard versus the DOX concentration.

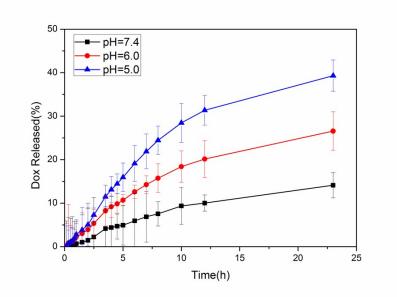


Figure S11 pH-Triggered hydrolysis of DOX in the dendritic-polyrotaxane drug conjugate micelles in prior 24 h (n=3).