

Supporting Information

Enhanced local cancer therapy by CA4P and CDDP co-loaded thermogelling polypeptide gel depot

Shuangjiang Yu^{a,d}, Shu Wei^b, Liang Liu^a, Desheng Qi^{a,b}, Jiayu Wang^{a,b}, Guojun Chen^c,

Wanying He^a, Chaoliang He^{a*}, Xuesi Chen^a and Zhen Gu^{c,d*}

^aKey Laboratory of Polymer Ecomaterials, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P. R. China. E-mail: clhe@ciac.ac.cn

^bSchool of Chemistry and Environmental Engineering, Changchun University of Science and Technology, Changchun 130022, P. R. China.

^cDepartment of Bioengineering, California Nanosystems Institute (CNSI), Jonsson Comprehensive Cancer Center, and Center for Minimally Invasive Therapeutics, University of California, Los Angeles (UCLA), 90095, USA. E-mail: guzhen@ucla.edu

^dJoint Department of Biomedical Engineering, University of North Carolina at Chapel Hill and North Carolina State University, Raleigh, North Carolina 27695, United States.

Materials

Cisplatin (CDDP) and combretastatin A4 disodium phosphate (CA4P) were purchased from Shan-dong Boyuan Pharmaceutical Co., Ltd. and Hangzhou Great Forest Biomedical Ltd., respectively. Both 3-(4,5-dimethyl-thiazol-2-yl)-2,5-diphenyl tetrazolium bromide (MTT) and poly(ethylene glycol) methyl ether (mPEG, $M_n = 2000$) were obtained from Sigma-Aldrich. L-glutamic acid and γ -benzyl L-glutamate were purchased from Aladdin Industrial Co. The amino-terminated mPEG (mPEG-NH₂) and γ -Ethyl-L-glutamate *N*-carboxyanhydride (ELG-NCA) were prepared according to our previous method (*Biomacromolecules*, 2012, **13**, 2053-2059). The solvents purchased from Beijing Chemical Industry Group Co. Ltd. Tetrahydrofuran (THF) and *N,N*-dimethylformamide (DMF) were dried by Calcium hydride (CaH₂) in this work. Dulbecco's modified Eagle's medium (DMEM) and fetal bovine serum (FBS) were obtained from Gibco. Both the BABI/c mice (female, 5~6 week-old) and SD rats (~ 200 g) were purchased from Laboratory animal center of Jilin University, China. All animal studies were performed under the protocols approved by the School of Life Sciences Animal Care and Use Committee of Northeast Normal University.

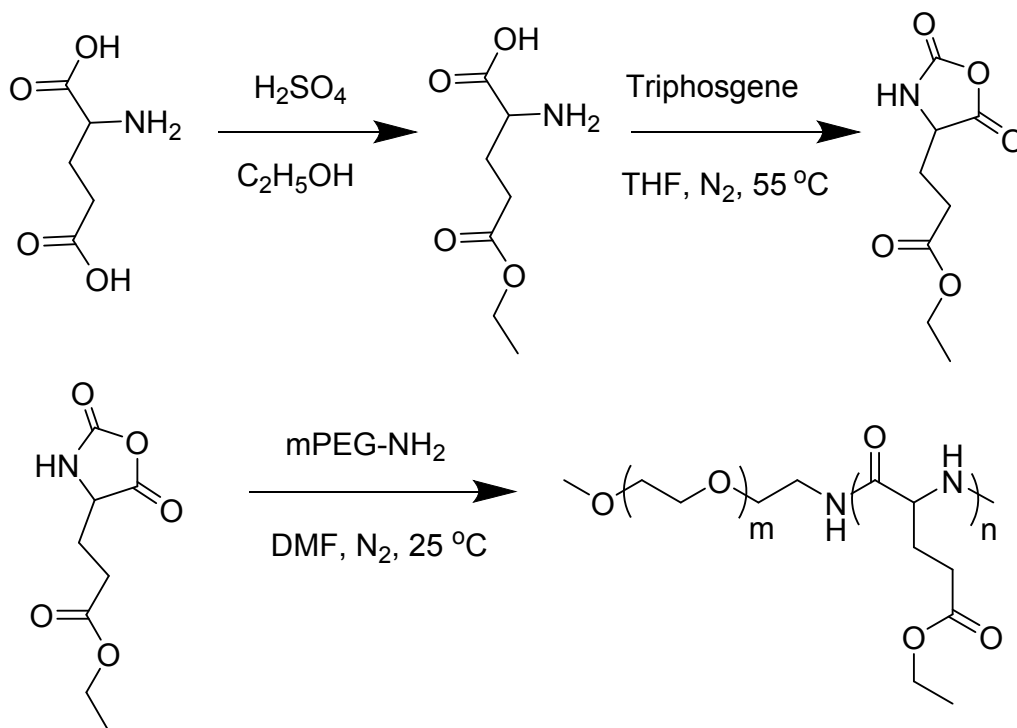


Figure S1. The synthesis route of the mPEG-*b*-PELG.

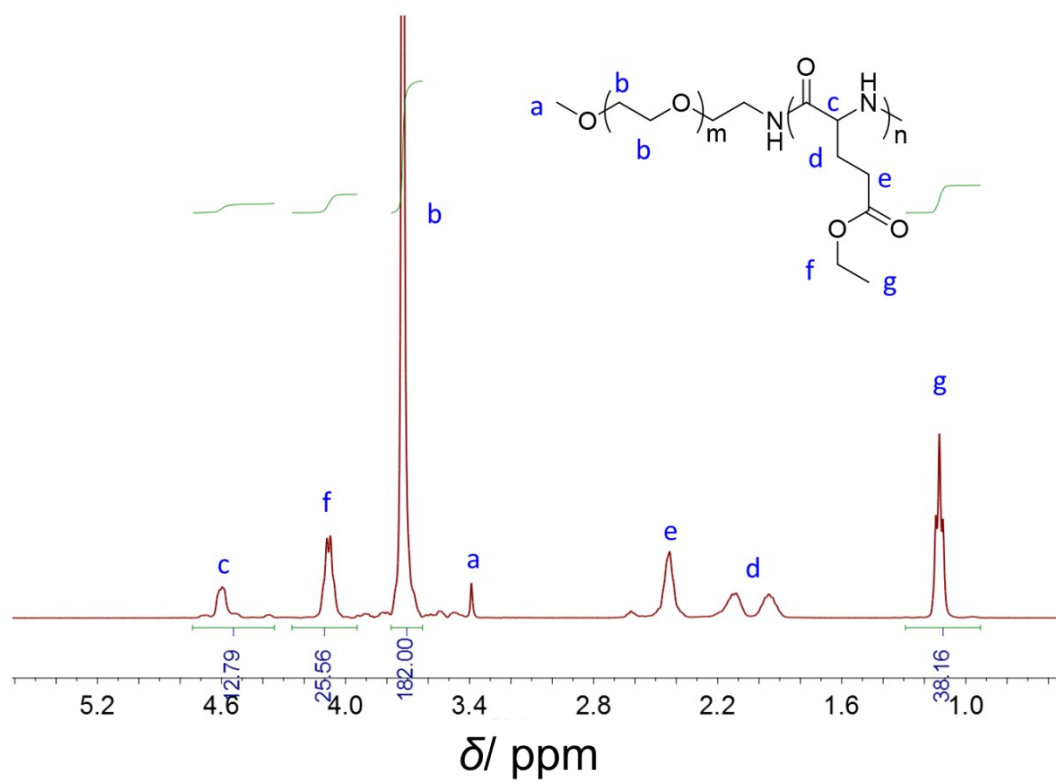


Figure S2. ^1H NMR spectrum of mPEG-*b*-PELG in Trifluoroacetic Acid-D.