

Electronic Supplementary Information

**MMP-responsive *in-situ* forming hydrogel loaded with
doxorubicin-encapsulated biodegradable micelles for local
chemotherapy of oral squamous cell carcinoma**

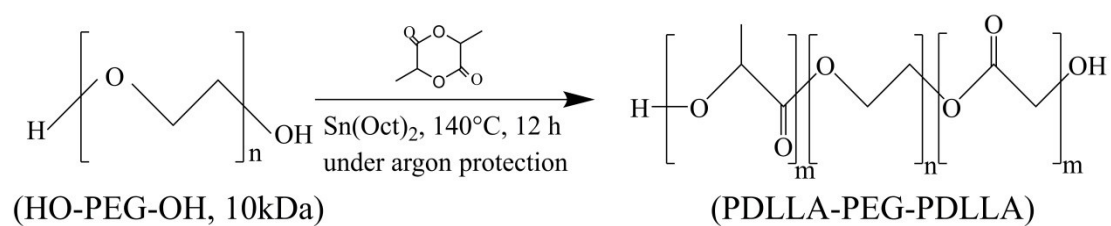
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Scheme S1 Synthetic route of poly(D,L-lactide)-poly(ethylene glycol)-poly(D,L-lactide) (PDLLA-PEG-PDLLA).

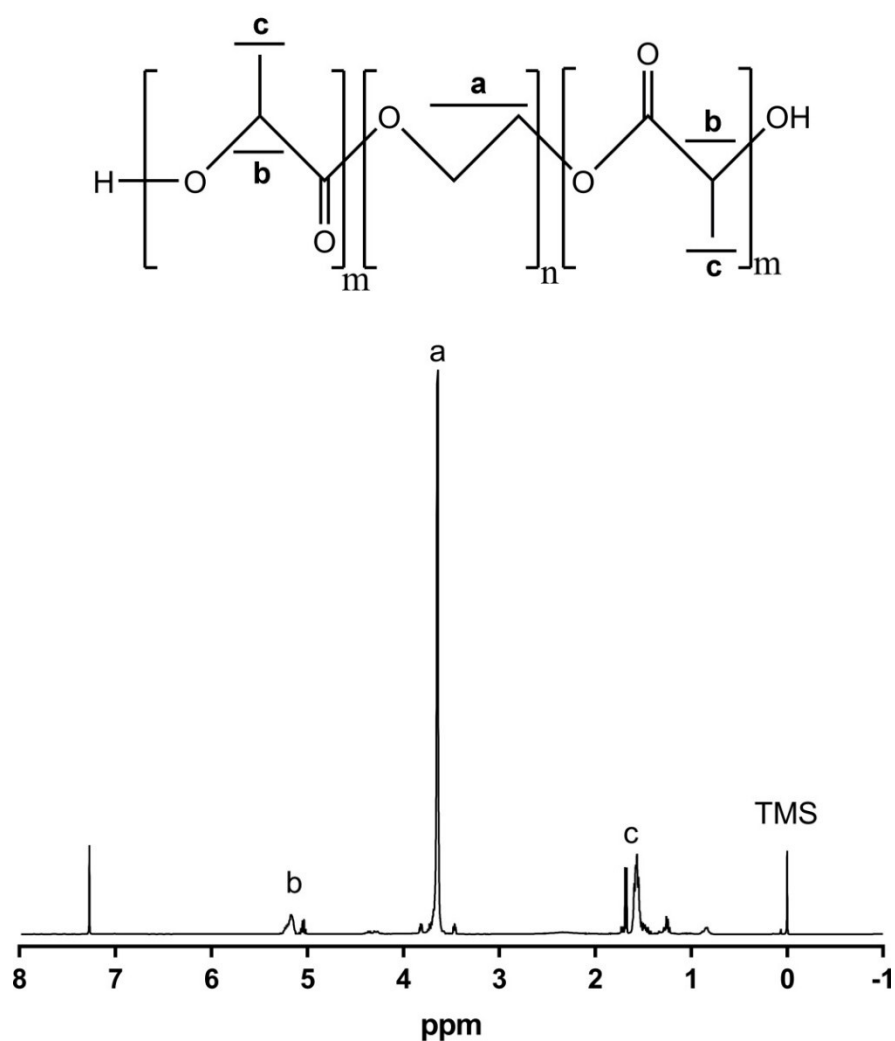


Fig. S1 ^1H NMR spectra of PDLLA-PEG-PDLLA using CDCl_3 as solvent. $\delta=3.7$ ppm (PEG chain protons), 5.2 ppm (methine of PDLLA block), 1.8 ppm (methyl of PDLLA block).

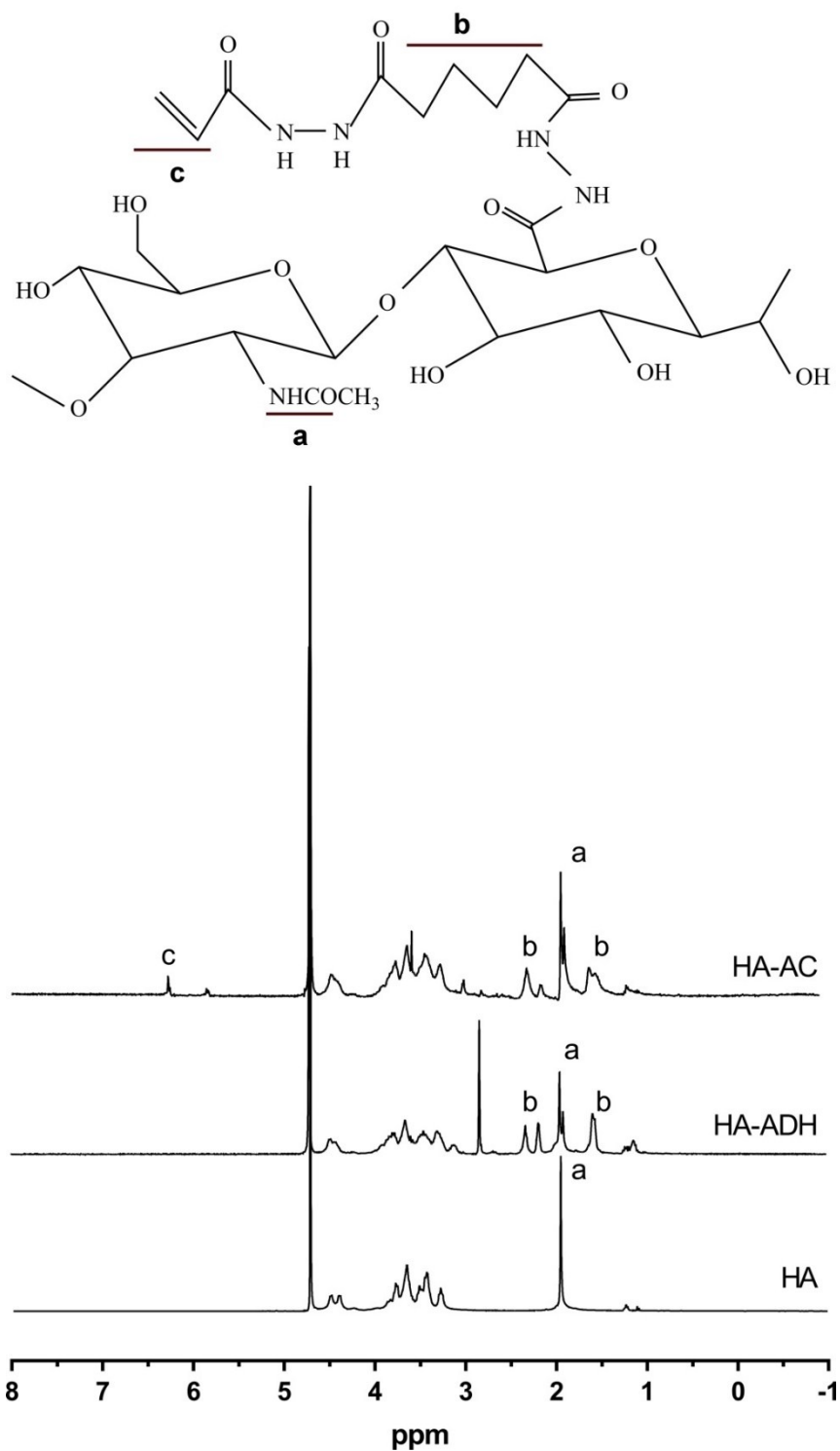


Fig. S3 ¹H-NMR spectrum of HA, HA-ADH and HA-AC. $\delta=1.6$ ppm and 2.3 ppm (the eight hydrogens of the methylene groups on the ADH), 1.88 ppm (the acetyl methyl protons in HA), 6.2 ppm (the cis and trans acrylate hydrogens in HA-AC).

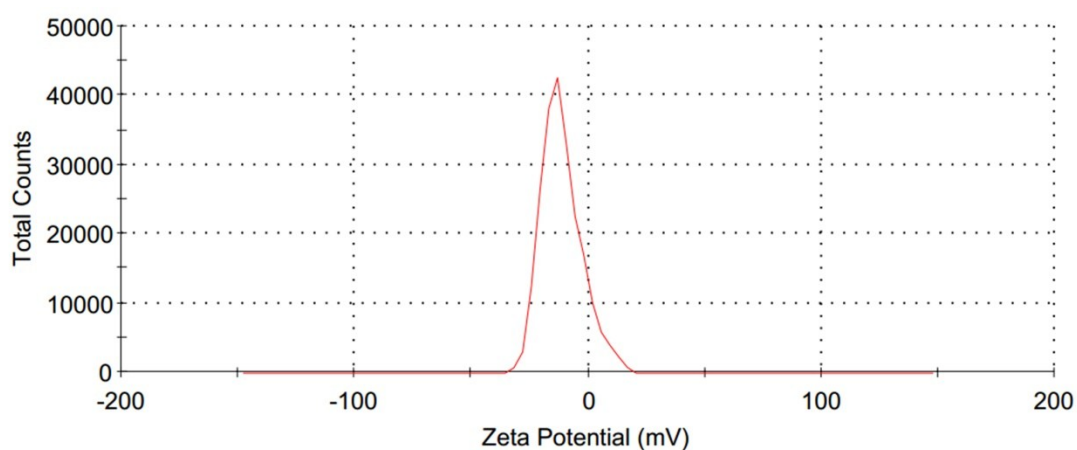


Fig. S4 Zeta potential distribution of NanoDOX in PBS (pH=7.4).

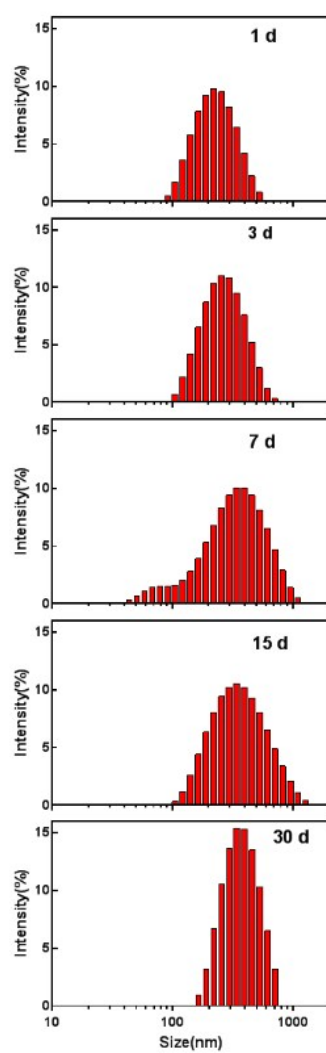


Fig. S5 The size distribution of NanoDOX incubated in PBS for 1, 3, 7, 15 and 30 d.

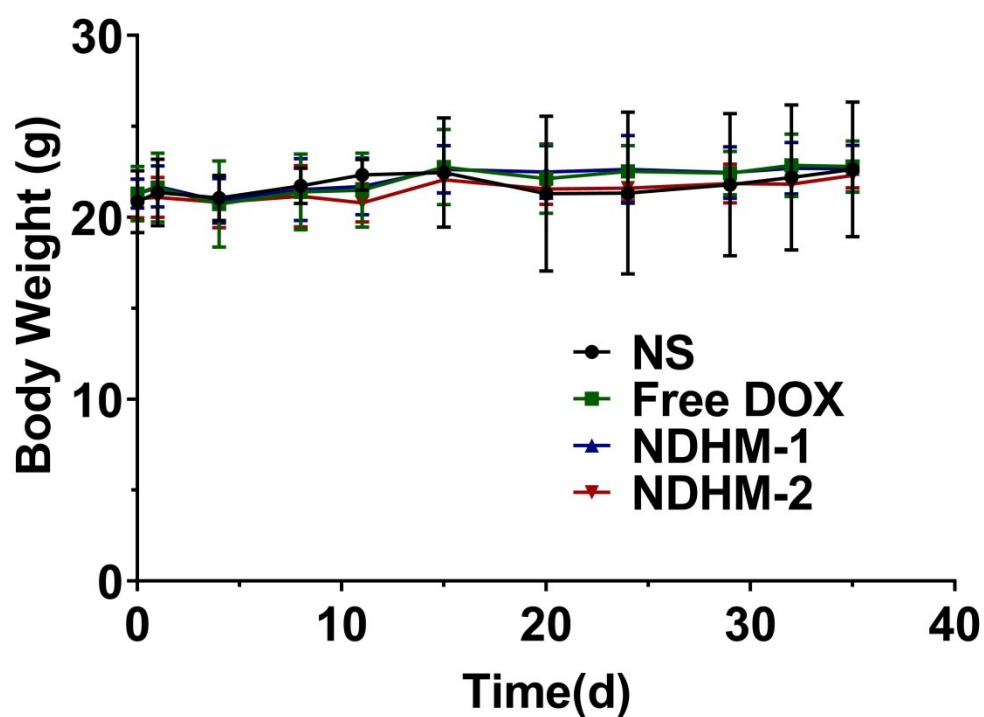


Fig. S6 Body weight curves of the mice for 35 days treated with NS, Free DOX, NDHM-1 (the dose of DOX at 2.5mg/kg) or NDHM-2 (the dose of DOX at 5mg/kg).

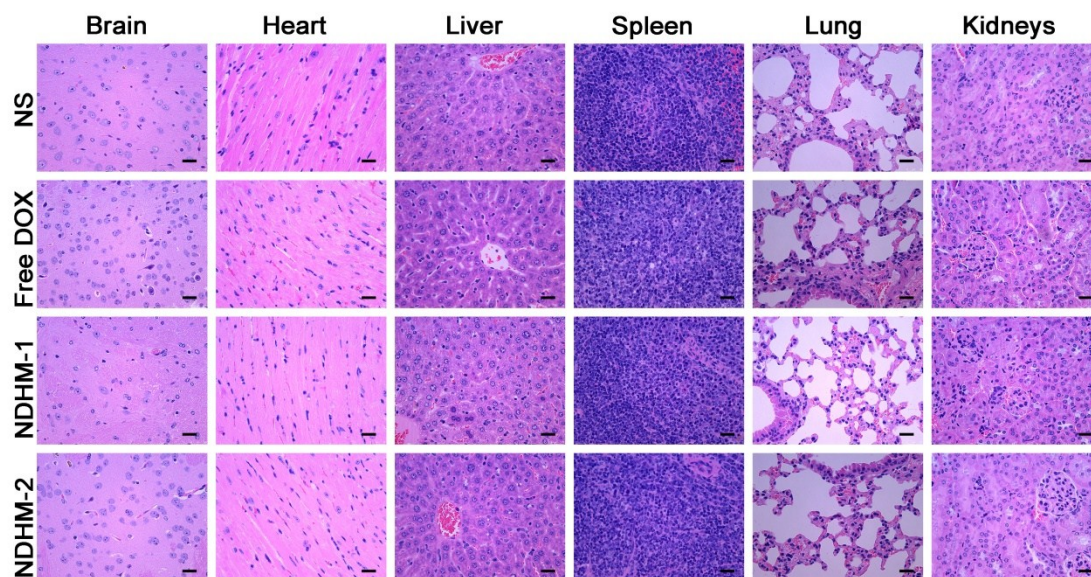


Fig. S7 Histological examination for mice treated with NS, free DOX, NDHM-1 (the dose of DOX at 2.5mg/kg) or NDHM-2 (the dose of DOX at 5mg/kg) (Scale bar=25μm).