

Supporting Information

Synthesis of Long-Circulating Backbone Degradable HPMA Copolymer-Doxorubicin Conjugates and Evaluation of Molecular Weight Dependent Antitumor Efficacy

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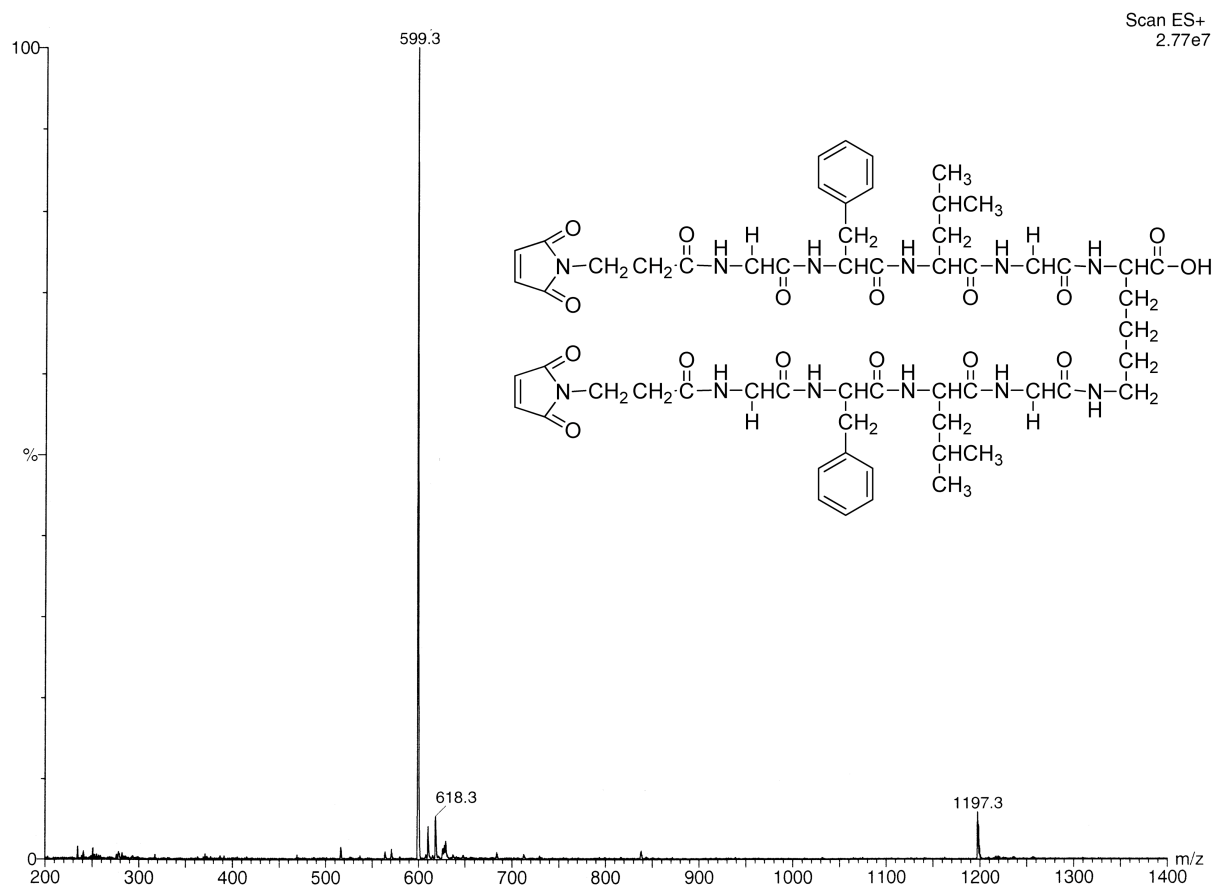


Figure S1. Mass spectrum of N^{α}, N^{ϵ} -bis(maleimidopropionylglycylphenylalanylleucylglycyl)lysine (P9MP2) measured on an FTMS mass spectrometer (LTQ-FT, ThermoElectron, Waltham, MA).

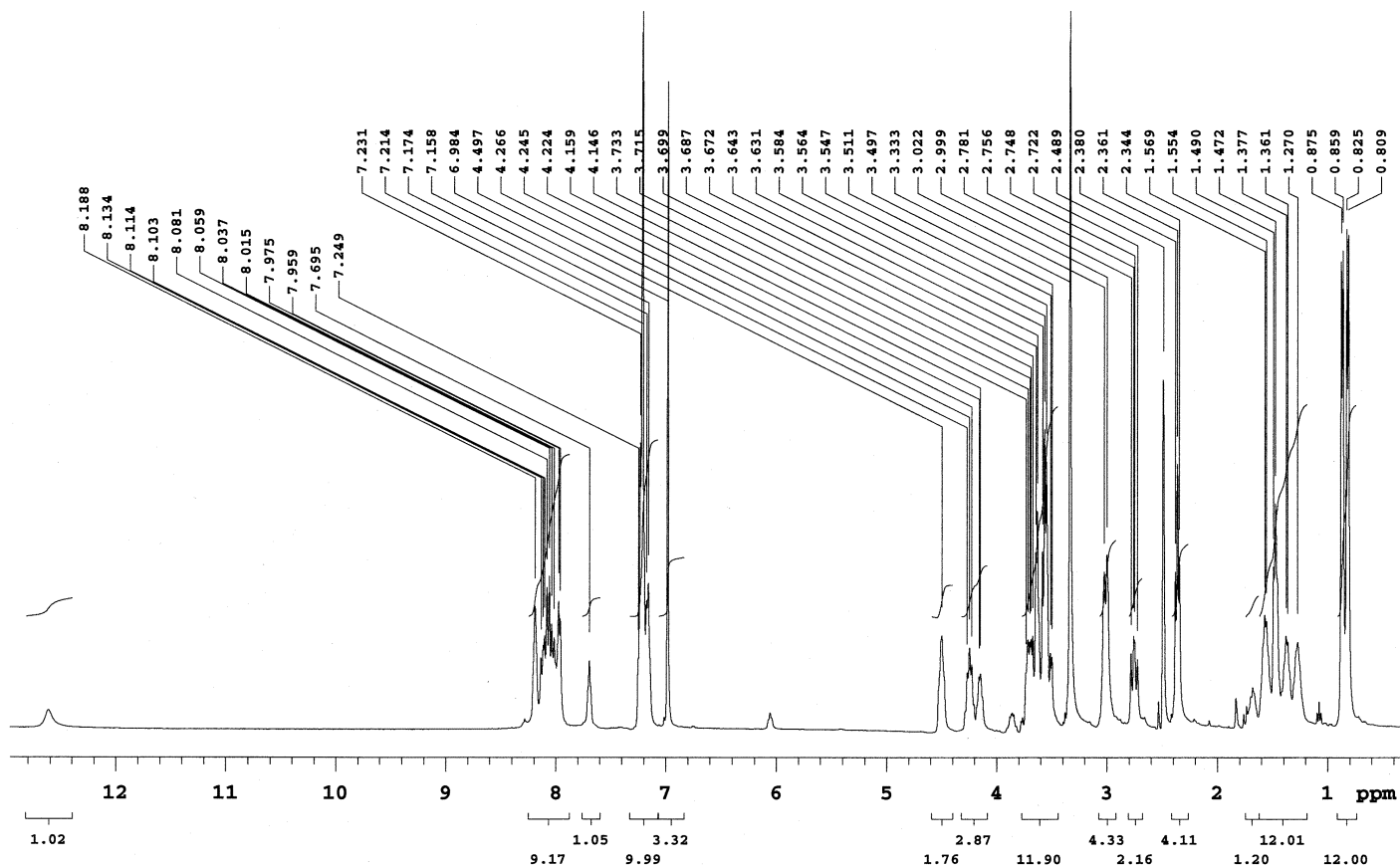


Figure S2. ^1H NMR spectrum of P9MP2 recorded on a Mercury400 spectrometer using DMSO-d_6 as the solvent. ^1H -NMR (DMSO-d_6 , δ , ppm): 12.62 (s, 1H, $-\text{COOH}$); 8.19-7.96 (m, 9H, CONH); 7.70 (s, 1H, CONH); 7.25-7.16 (m, 10H, Ph-H); 6.98 (s, 4H, $=\text{CH-}$); 4.50 (m, 2H, Phe-CH); 4.27-4.15 (m, 3H, Leu-CH , Lys-CH); 3.73-3.50 (m, 12H, Mal-CH_2 , Gly-CH_2); 3.02-3.00 (m, 4H, Phe-CHH , Lys-NH-CH_2); 2.78-2.72 (m, 2H, Phe-CHH); 2.38-2.34 (m, 4H, Mal-C-CH_2); 1.57-1.27 (m, 12H, $\text{Lys-C-CH}_2\text{CH}_2\text{CH}_2\text{-C}$, $\text{Leu-CH}_2\text{CHMe}_2$); 0.88-0.81 (dd, 12H, $\text{Leu-(CH}_3)_2$).

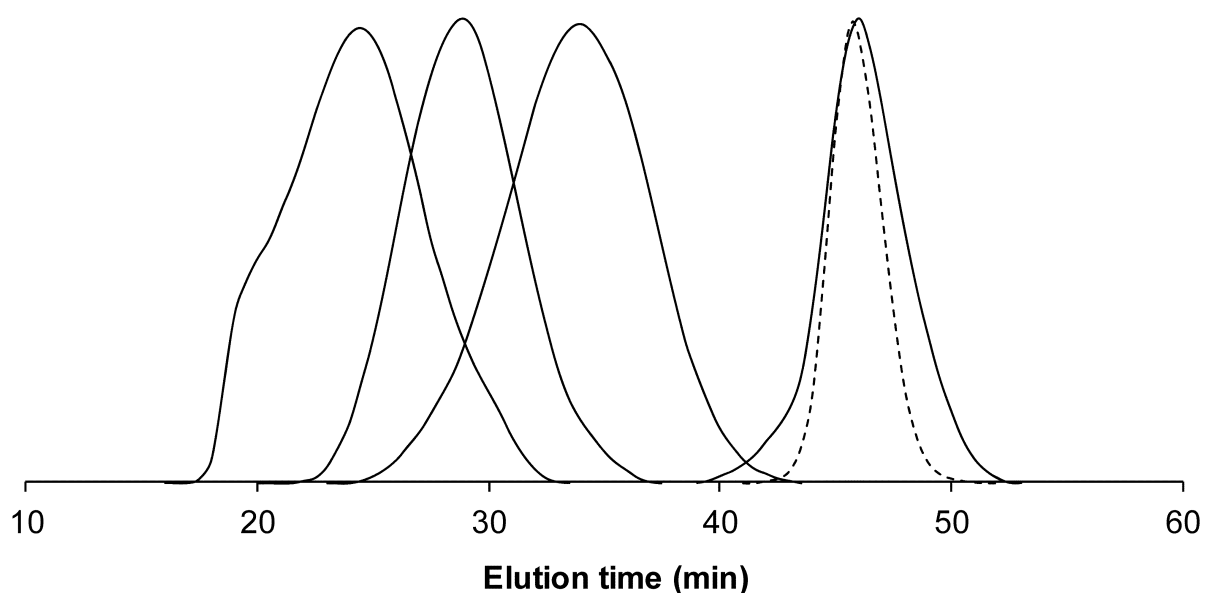


Figure S3. FPLC profiles of the conjugates recorded on an FPLC (fast protein liquid chromatography) system (GE Healthcare, formerly Amersham) equipped with miniDAWN TREOS and OptilabEX detectors (Wyatt Technology, Santa Barbara, CA) using Superose 6 column with acetate buffer/acetonitrile (70/30, pH 6.5) as the mobile phase and flow rate 0.4 mL/min. Solid lines (from left to right): mP-DOX349, mP-DOX185, mP-DOX94 and P-DOX20; dashed line: PHPMA.

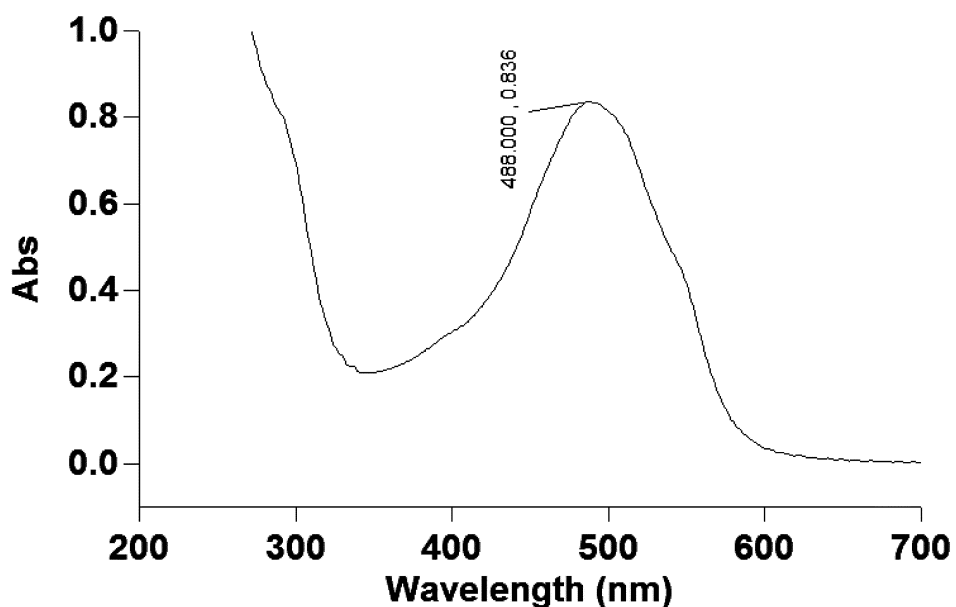


Figure S4. UV-vis profile of mP-DOX349 recorded on Varian Cary 400 Bio UV-visible spectrophotometer. The concentration of the conjugate in water is 0.5 mg/mL.