SUPPORTING INFORMATION

Backbone Degradable Multiblock *N*-(2-Hydroxypropyl)methacrylamide Copolymer Conjugates via Reversible Addition Fragmentation Chain Transfer Polymerization and Thiol-ene Coupling Reaction

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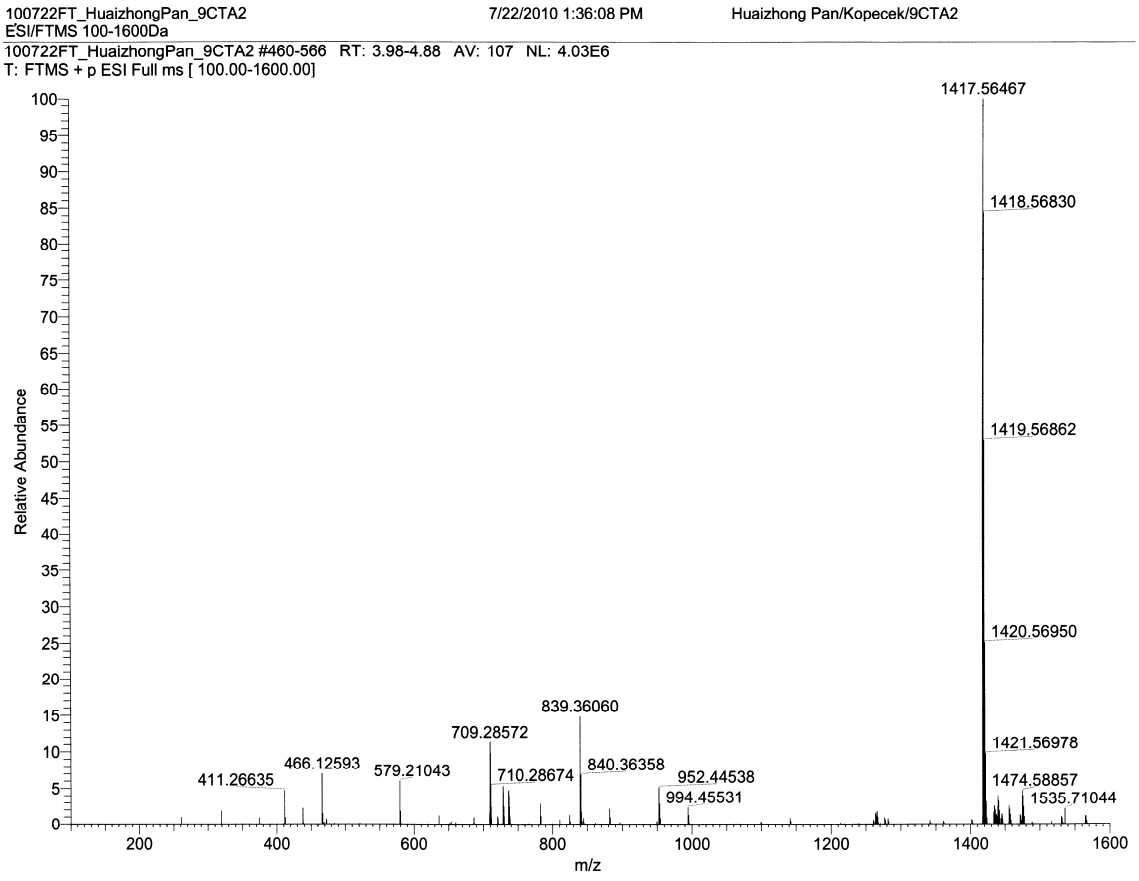
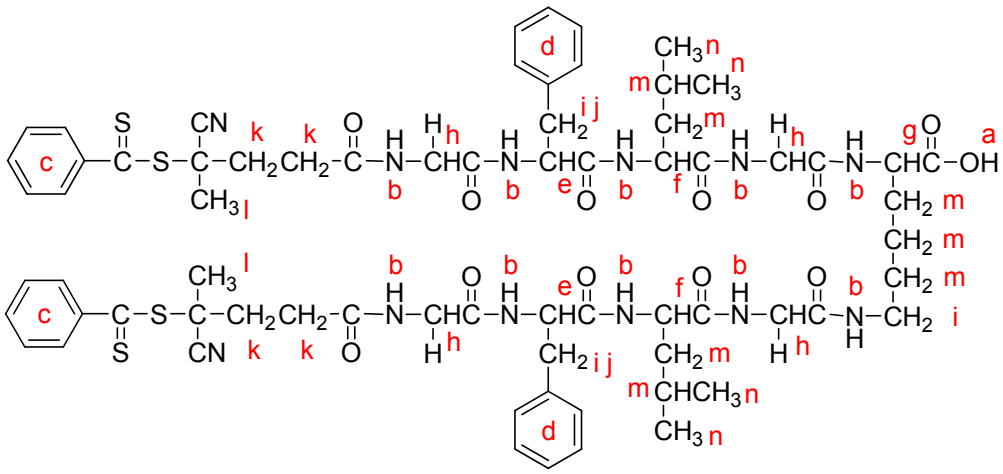
Methods

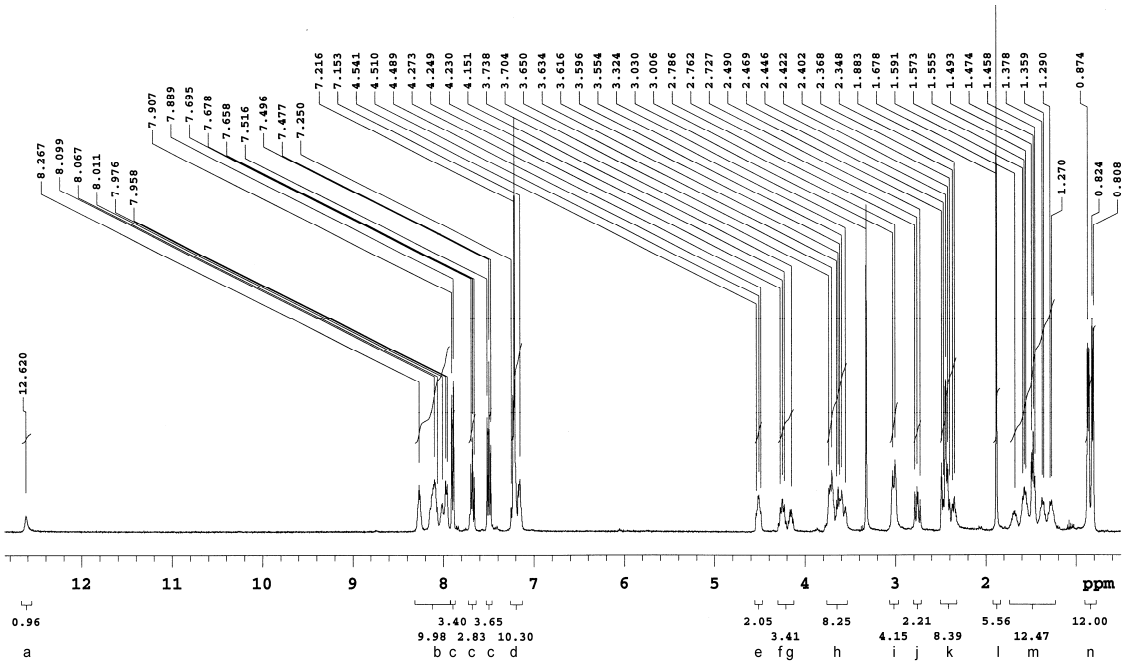
Mass spectrum was measured on an FTMS mass spectrometer (LTQ-FT, ThermoElectron, Waltham, MA). ^{1}H-NMR spectra were recorded on a Mercury400 spectrometer using DMSO-d_6 as the solvent. Stability of Peptide2CTA was determined on RP-HPLC (Agilent Technologies 1100 series, Zorbax C8 column 4.6×150 mm) with gradient elution from 2 to 90% of Buffer B within 30 min at flow rate of 1.0 mL/min (Buffer A: deionized water with 0.1% TFA, Buffer B: acetonitrile with 0.1% TFA).

Mass spectrum of Peptide2CTA

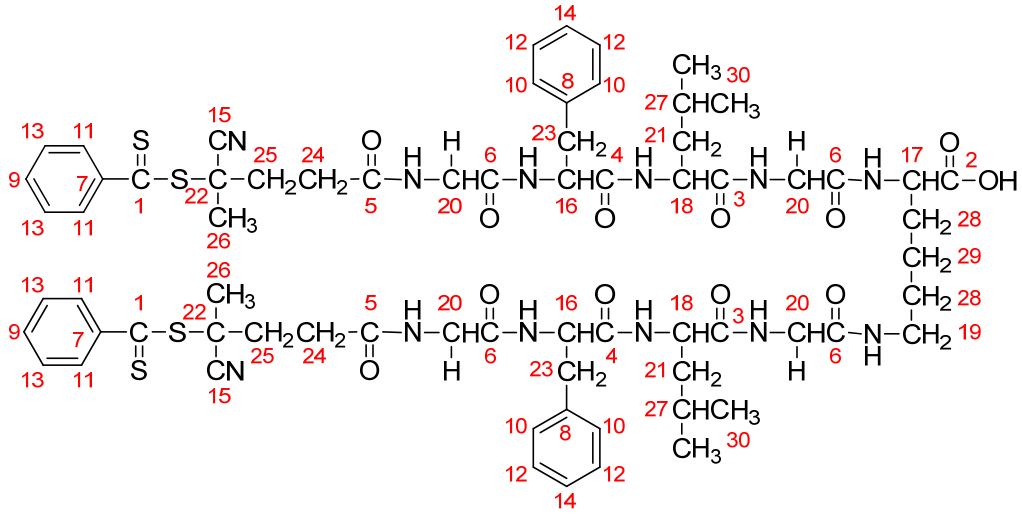


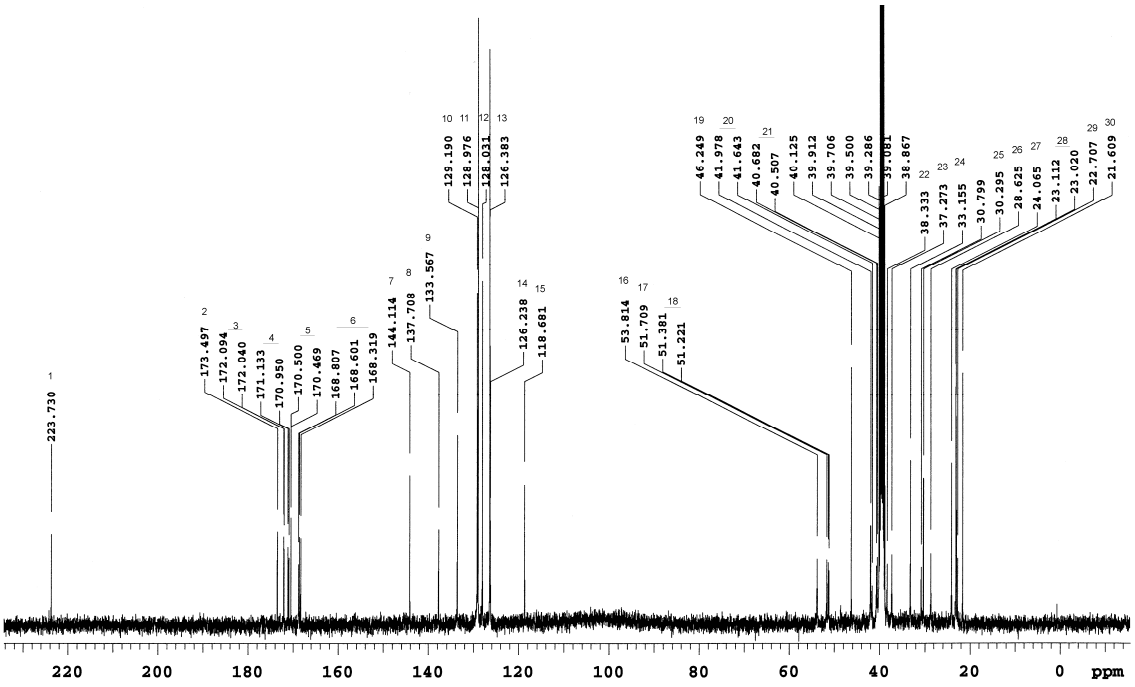
^{1}H-NMR spectrum of Peptide2CTA





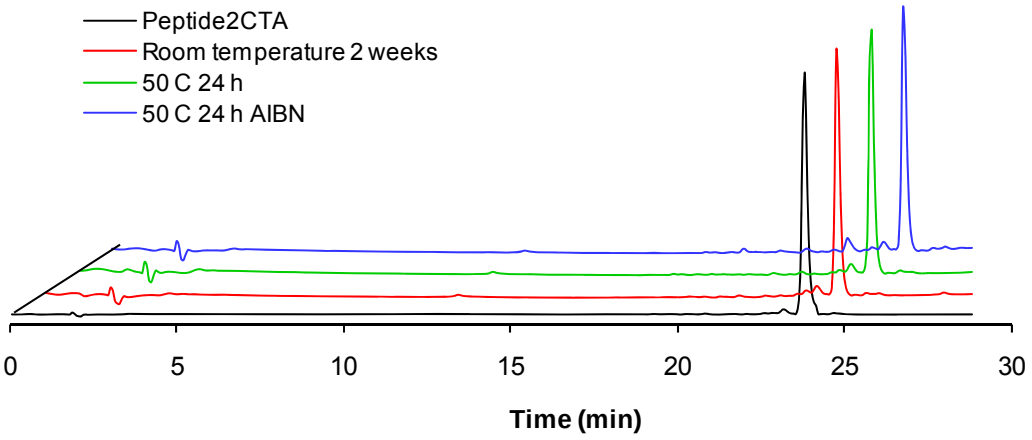
^{13}C-NMR spectrum of Peptide2CTA





Stability of Peptide2CTA under polymerization condition

Peptide2CTA was dissolved in methanol (~1 mg/mL) with or without AIBN (AIBN/Peptide2CTA, 2/5 mol/mol). The solution was bubbled with N_2 for 30 min, sealed and incubated at 50 °C for 24 h or at room temperature for 2 weeks. The stability of Peptide2CTA was measured by RP-HPLC.



Peptide2CTA peak appeared at 23.8 min. The results showed that the CTA is pure and very stable during incubation in methanol with or without AIBN. A small peak appeared at 22.1 min in HPLC profile of Peptide2CTA after incubation with AIBN at 50 °C for 24 h; it may be the result of minor exchange reaction between Peptide2CTA and AIBN.