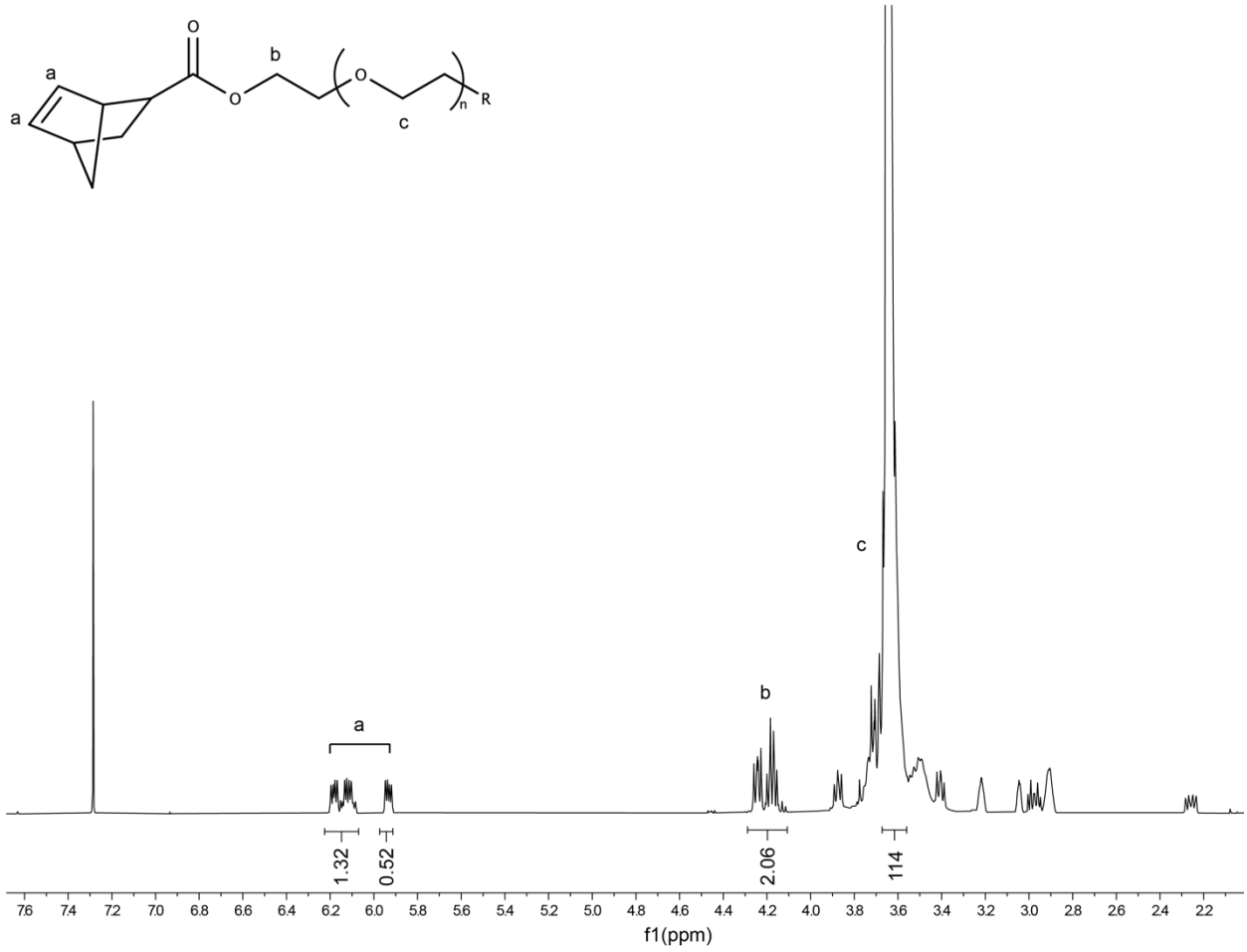

Figure S1. ^{1}H NMR of 10 kg/mol poly(ethylene glycol) norbornene (PEGNB). δH (ppm) (300 MHz, $CDCl_3$, Me_4Si): 3.71 (s, 114H, PEG CH_2-CH_2), 4.1-4.2 (m, 2H, -CH_2-O), 5.9-6.2 (m, 2H, –CH=CH-). NMR shows quantitative norbornene functionalization based on a comparison of the alkene protons from norbornene to the theoretically expected number of alkene protons, using the ethylene glycol protons as a reference. Functionalization was measured as 92%.

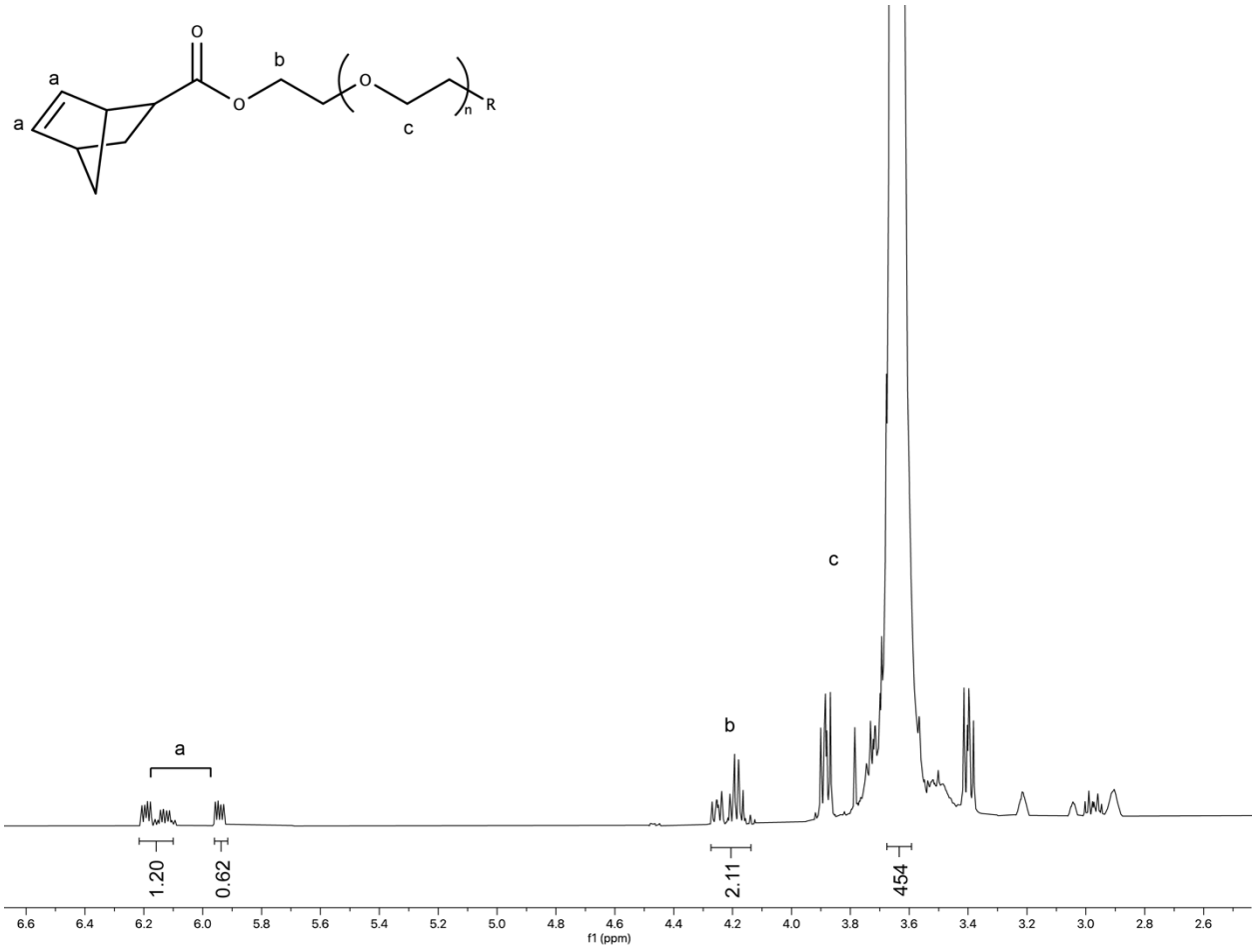

Figure S2. ^{1}H NMR of 40 kg/mol poly(ethylene glycol) norbornene (PEGNB). δH (ppm) (300 MHz, $CDCl_3$, Me_4Si): 3.71 (s, 114H, PEG CH_2-CH_2), 4.1-4.2 (m, 2H, -CH_2-O), 5.9-6.2 (m, 2H, –CH=CH-). NMR shows quantitative norbornene functionalization based on a comparison of the alkene protons from norbornene to the theoretically expected number of alkene protons, using the ethylene glycol protons as a reference. Functionalization was measured as 91%.