

## Supporting Information

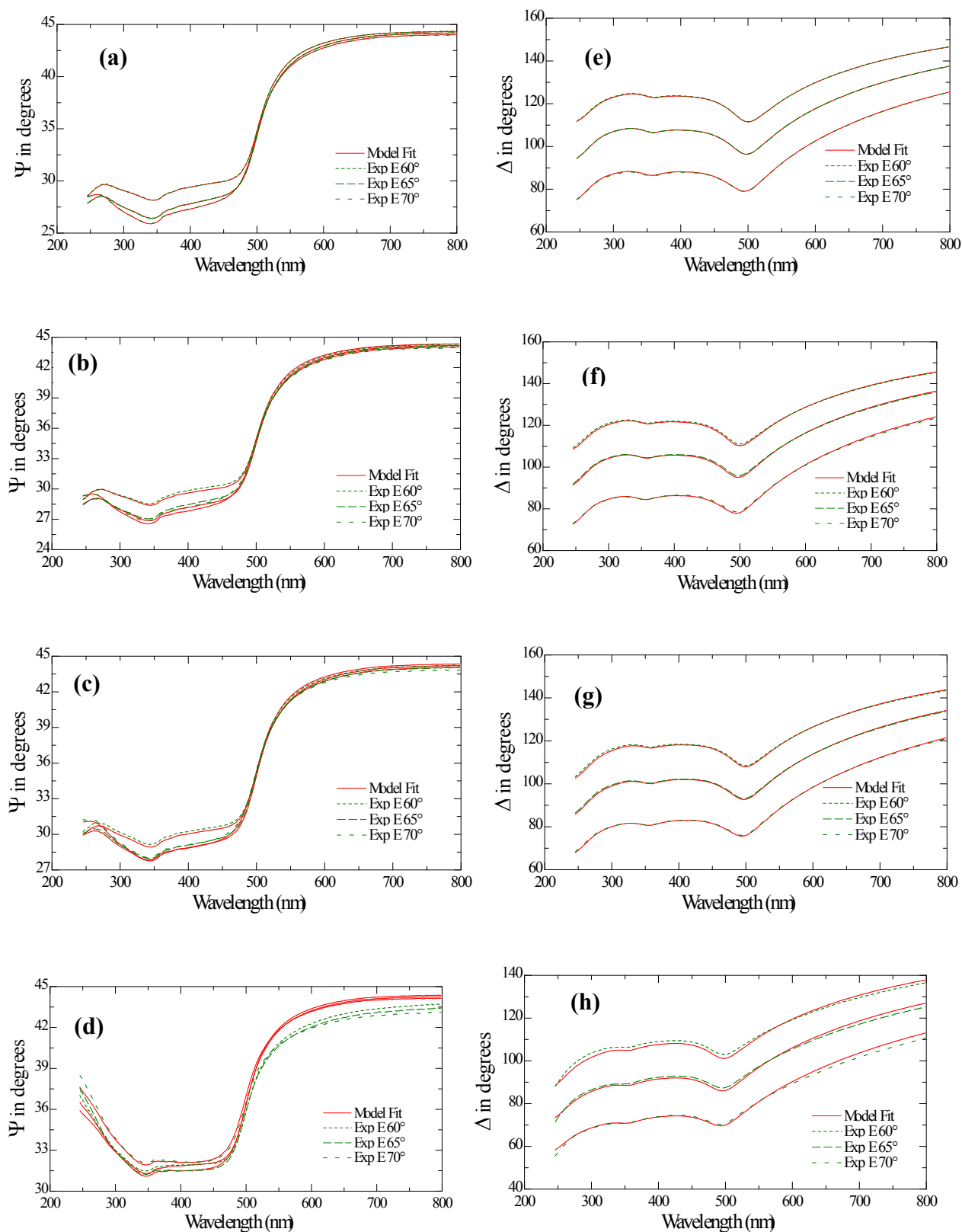
### Immobilization of Multivalent Glycoprobes on Gold Surfaces For Sensing Protein and Macrophages.

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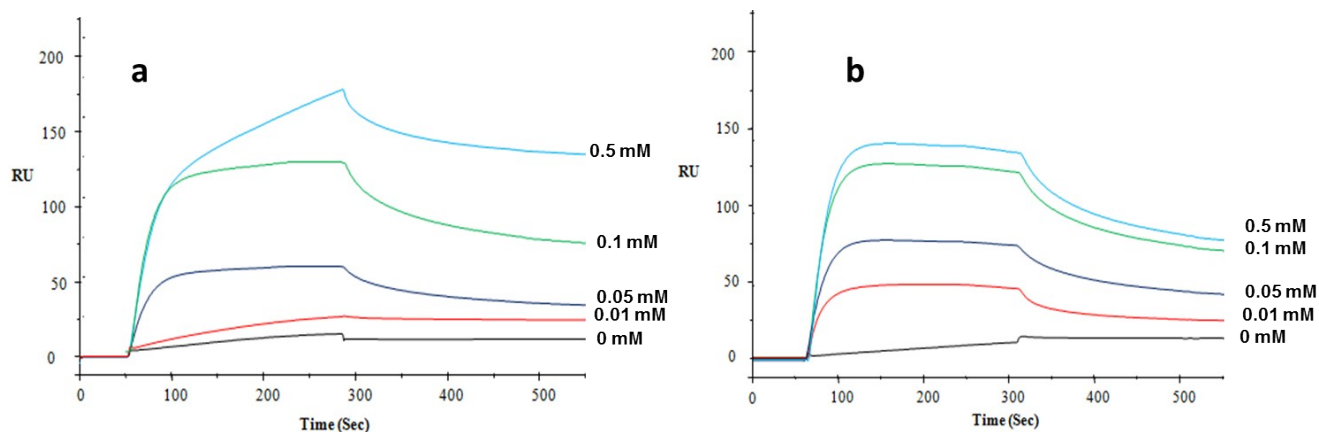
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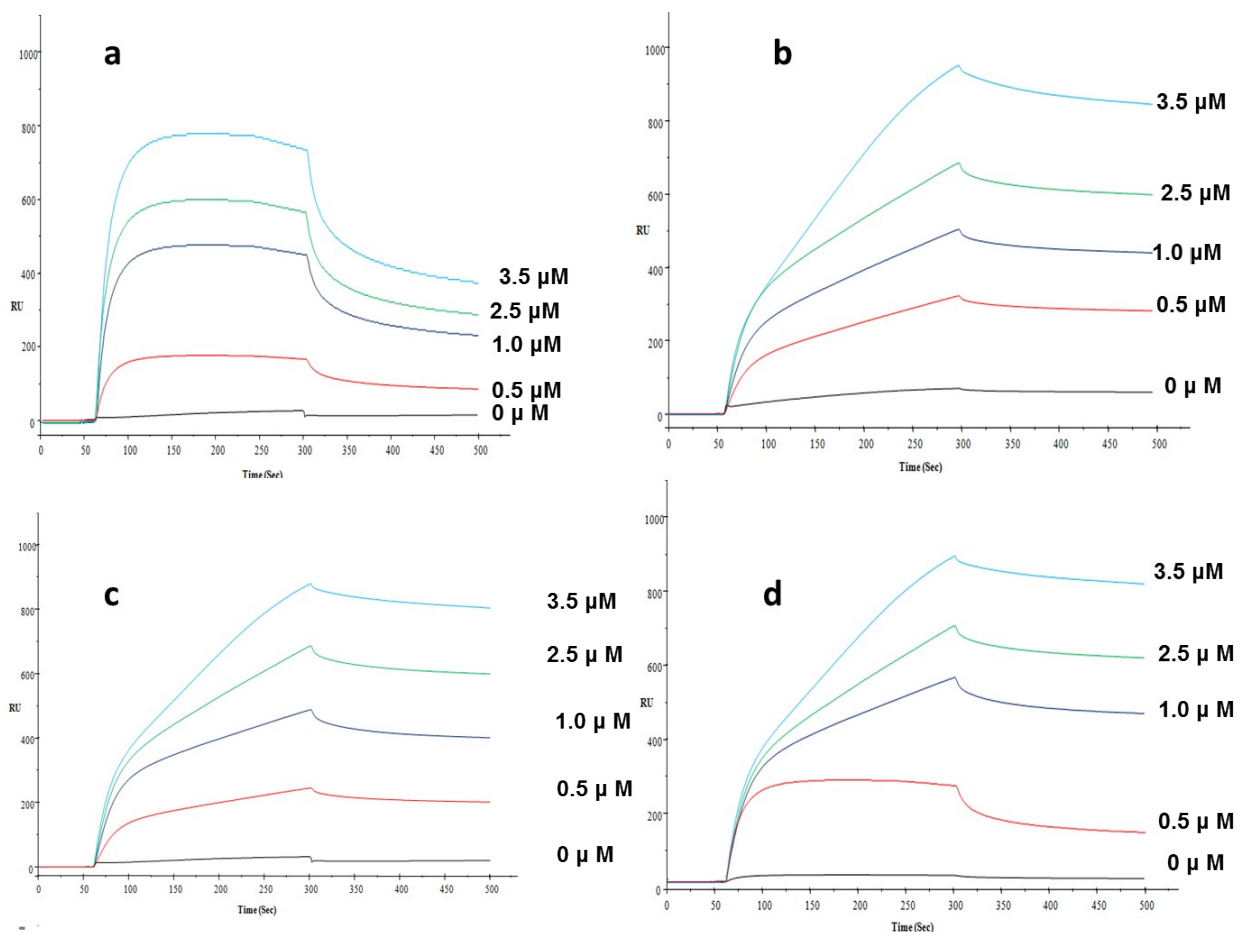
<sup>b</sup>Physical and Material Chemistry, CSIR-National Chemical Laboratory, Dr. HomiBhabha Road, Pune-411008, India.



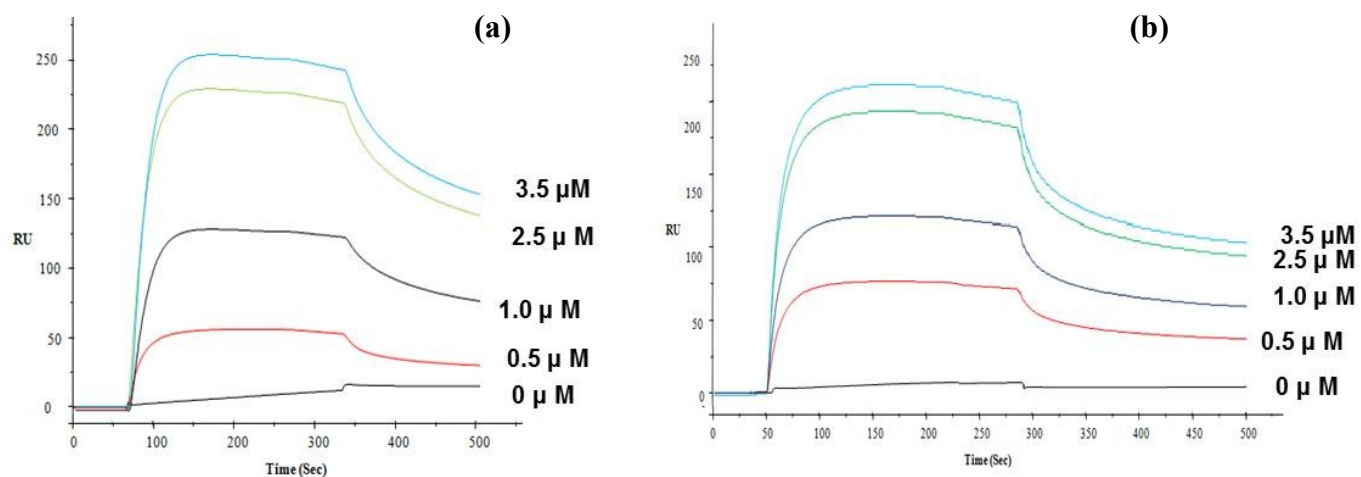
**Figure S1.** Spectroscopic ellipsometry data (a-d)  $\Psi$  and (e-h)  $\Delta$  from (a, e) bare Au film, (b, f) 6/Au film, (c, g) Au/6/M-1 film and (d, h) Au/6/M-1/Con A film. The angle of incidence varies between  $60^\circ$  and  $70^\circ$ . Both experimental and modeled data are shown.



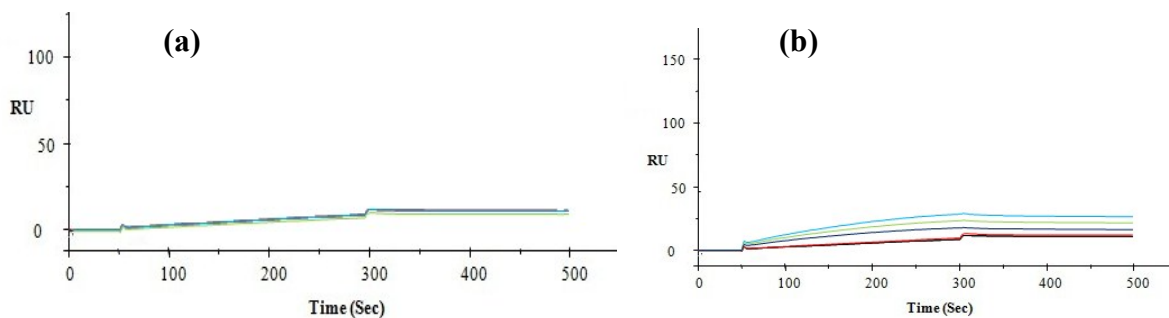
**Figure S2.** SPR sensorgrams for different concentrations of  $\beta$ -CD incubated with (a) **6** (0.01mM), (b) **6** (0.1 mM).



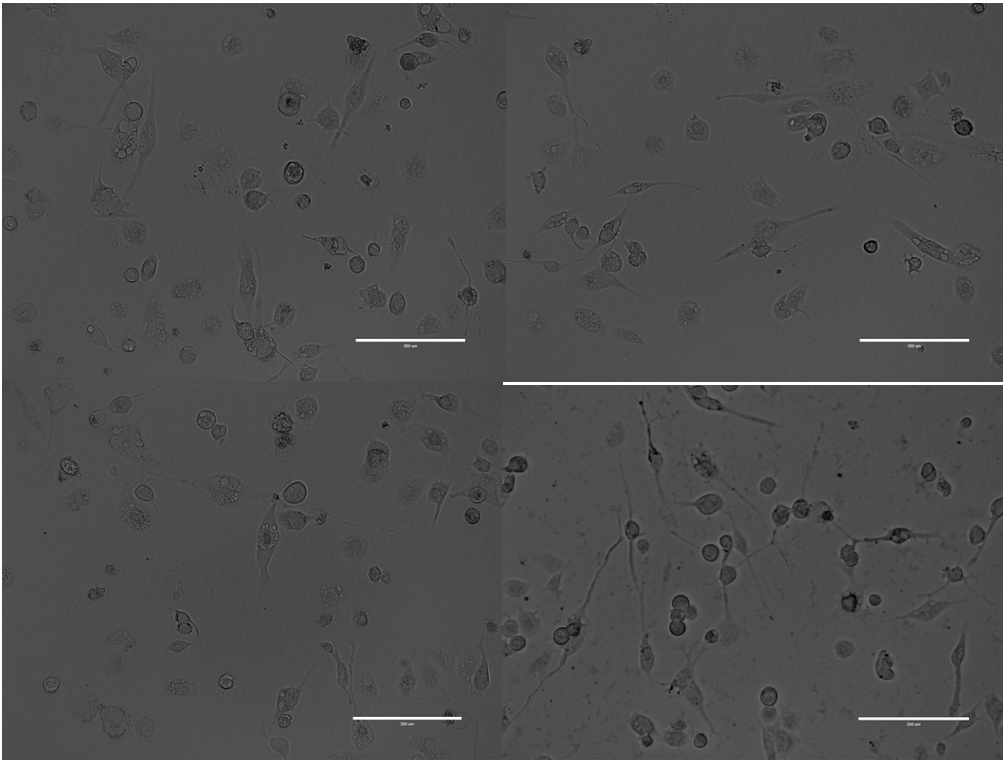
**Figure S3.** SPR sensorgrams for different concentrations of Con A incubated with (a) **H-5: 6** (0.01mM) & **M-2** (0.05 mM); (b) **H-6: 6** (0.01 mM) & **M-2** (0.5 mM); (c) **H-7: 6** (0.1mM) & **M-2** (0.05 mM), (d) **H-8: 6** (0.1 mM) & **M-2** (0.5 mM).



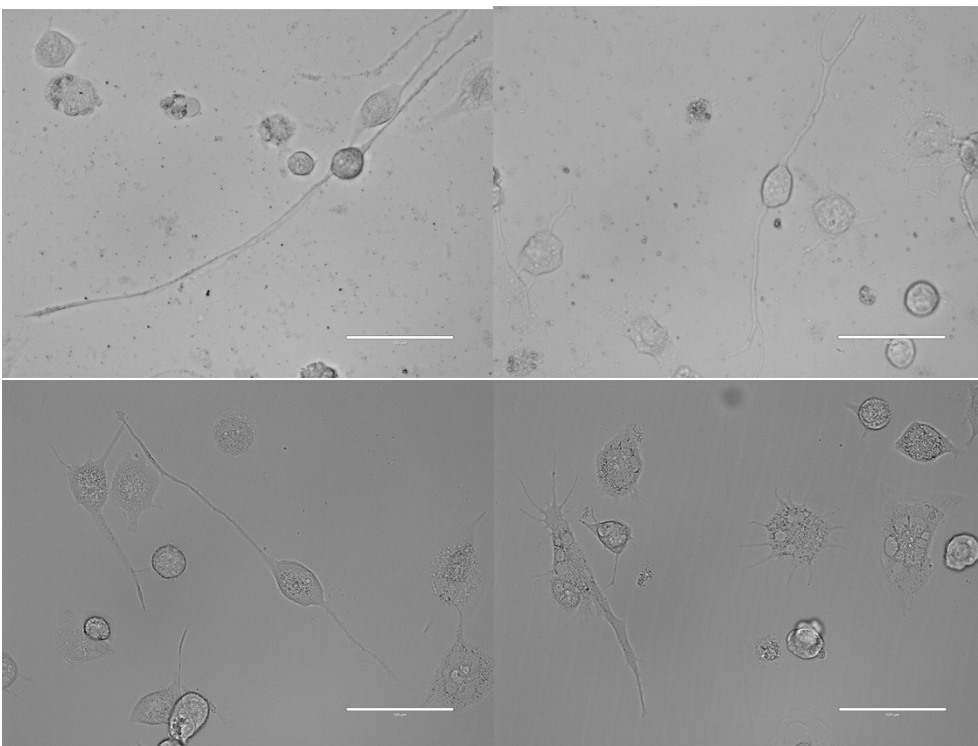
**Figure S4.** SPR sensorgrams for different concentrations of ConA incubated with (a) **6** (0.01mM) &  $\beta$ -CD (0.05 mM), (b) **6** (0.01 mM) &  $\beta$ -CD (0.5 mM).



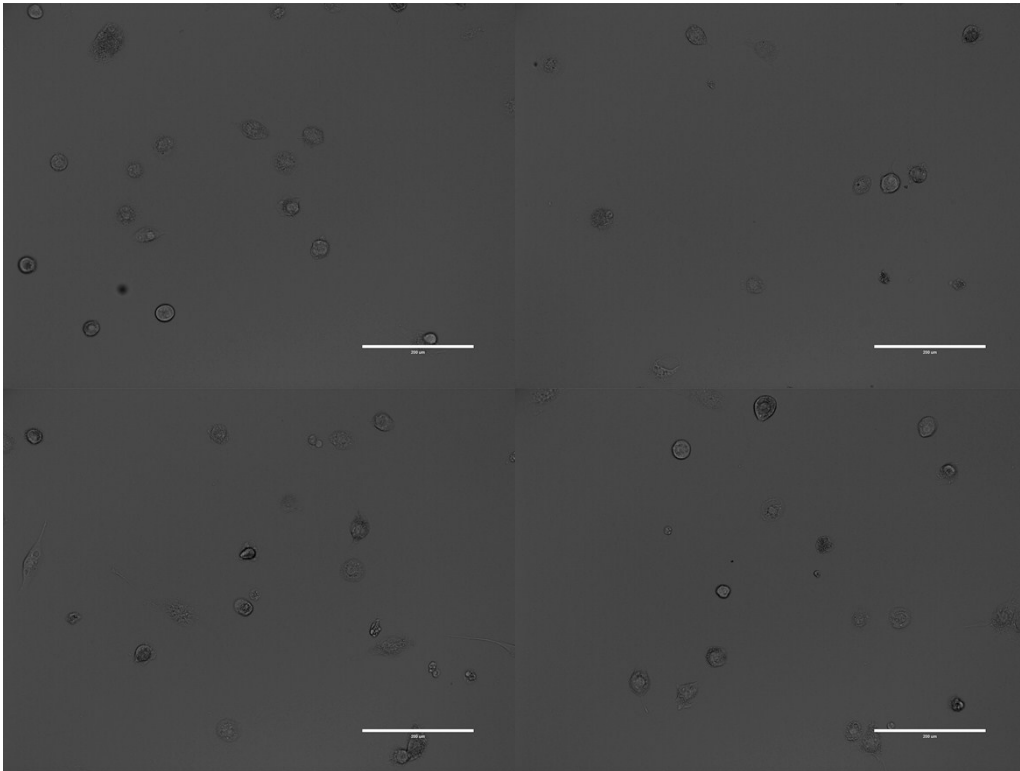
**Figure S5.** SPR sensorgrams for different concentrations of PNA incubated with (a) **6** (0.01mM) & **M-1** (0.05 mM), (b) **6** (0.01 mM) & **M-2** (0.5 mM); [--- (0  $\mu$ M), --- (0.5  $\mu$ M), --- (1.0  $\mu$ M), --- (2.5  $\mu$ M) and --- (3.5  $\mu$ M)].



**Figure S6.** Representative images of macrophage cells adhesion to substrates covered with **6/M-1** (**20X**). Scale bar length is 200  $\mu\text{m}$ .

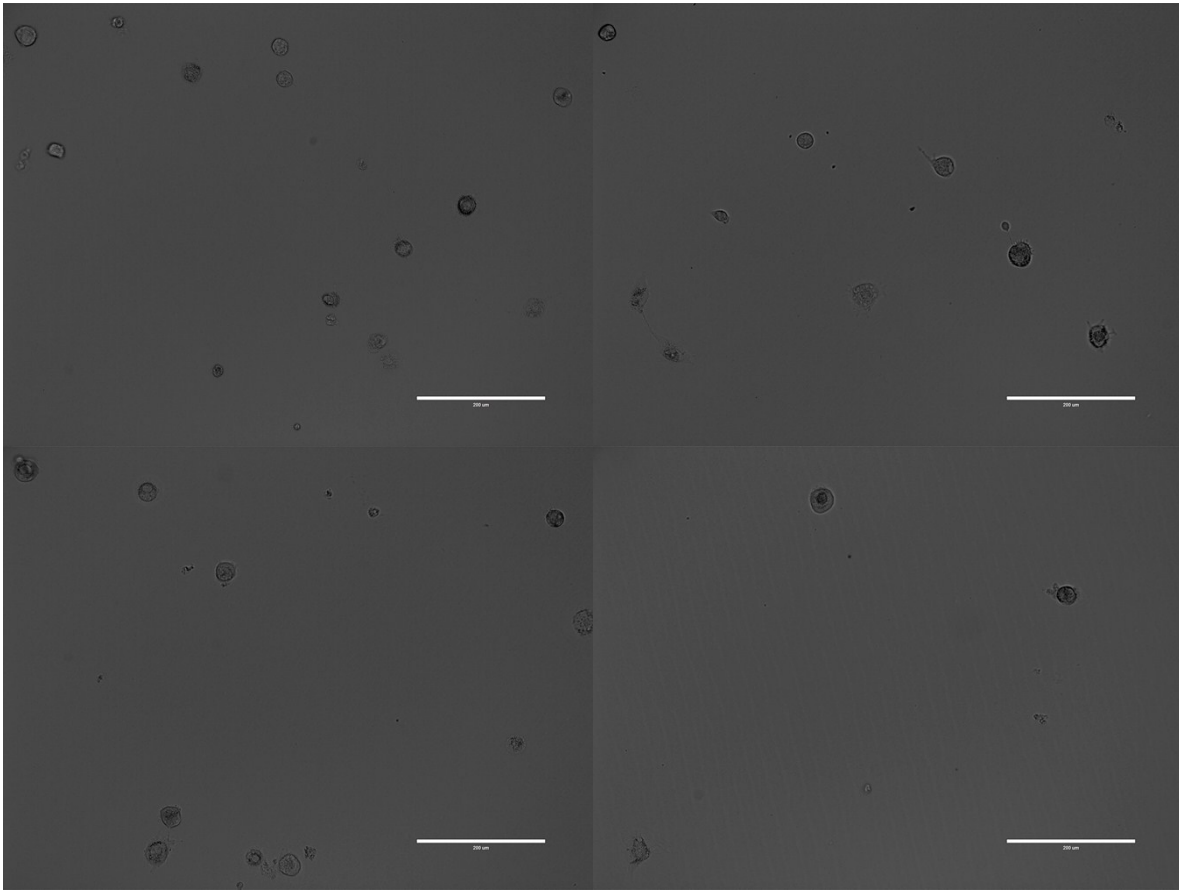


**Figure S7.** Representative images of macrophage cells adhesion to substrates covered with **6/M-1** (**40X**). Scale bar length is 200  $\mu\text{m}$ .



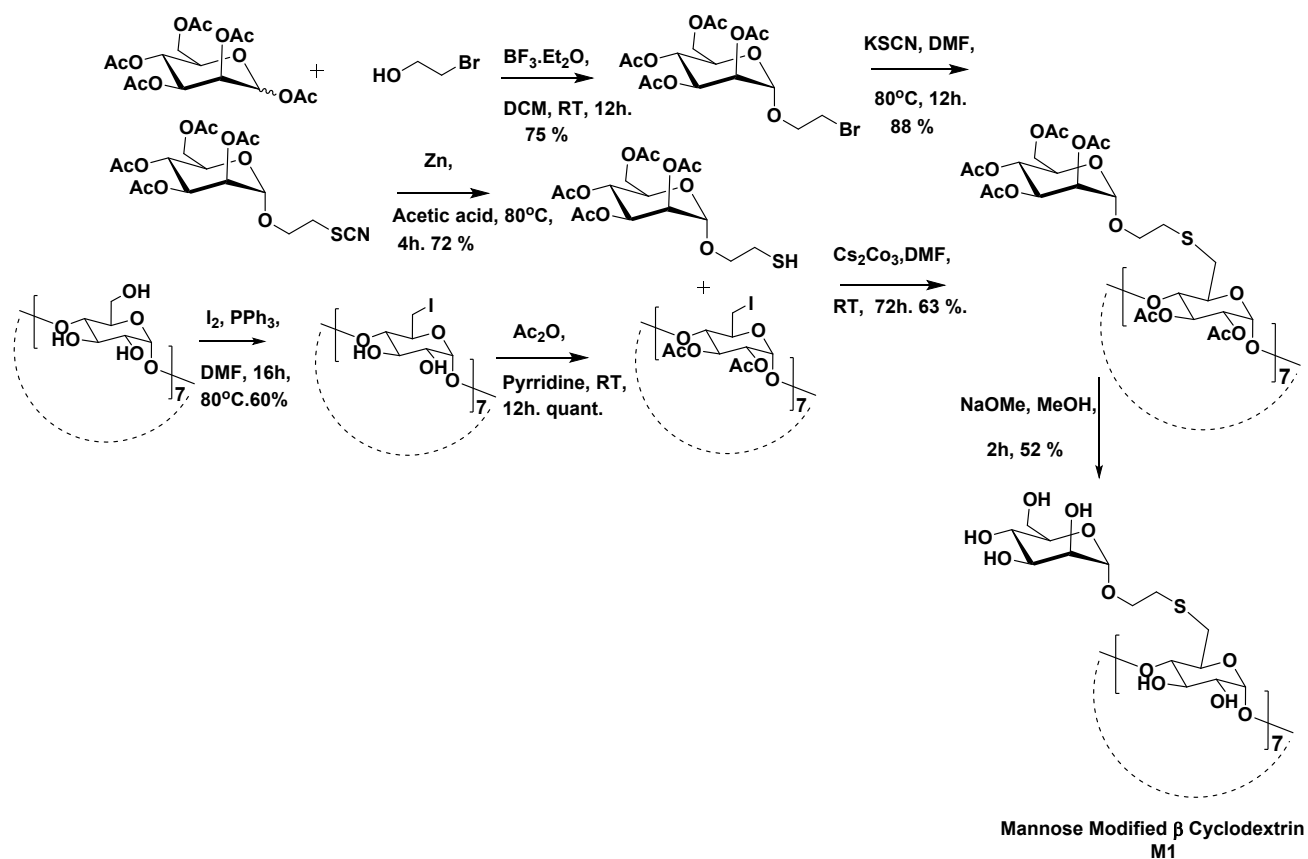
**Figure S8.** Representative images of macrophage cells adhesion to substrates covered with **6/M-2**.

Scale bar length is 200  $\mu\text{m}$ .



**Figure S9.** Representative images of macrophage cells adhesion to substrates covered with **6/β-CD**.

Scale bar length is 200 μm..



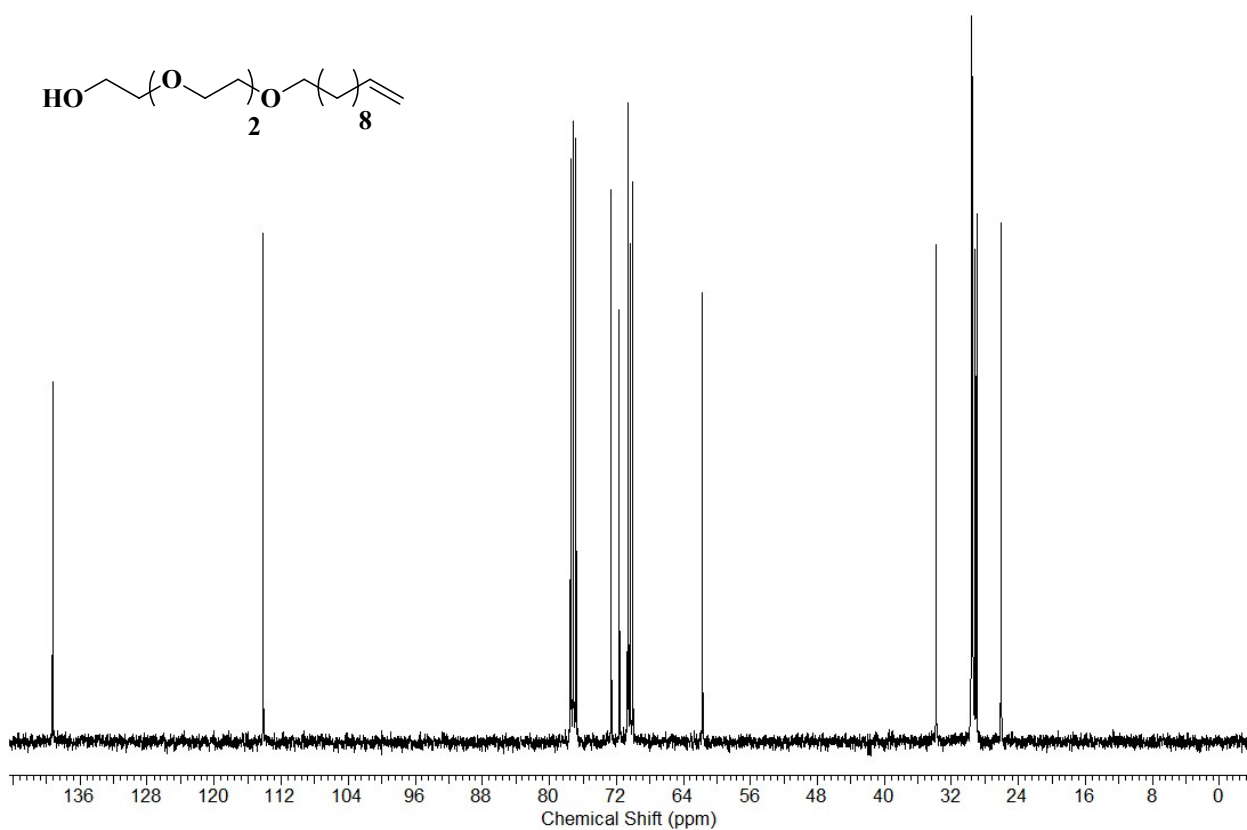
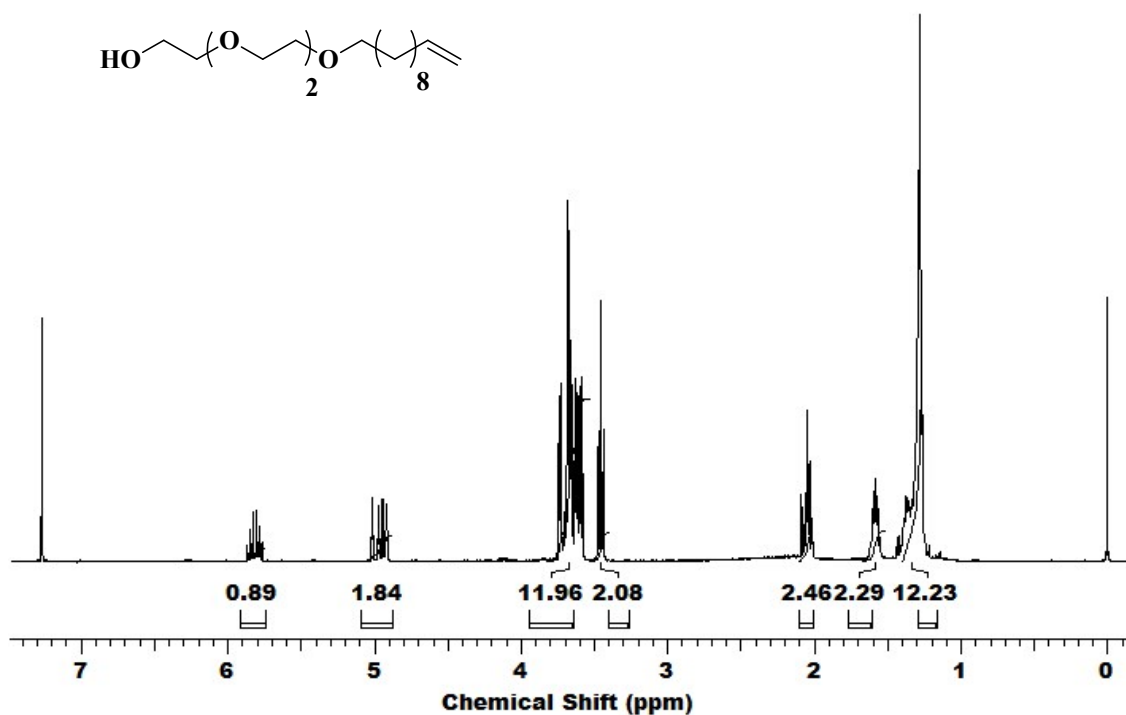
**Scheme S1.** Synthesis of Mannose- $\beta$ -cyclodextrin (**M-1**).

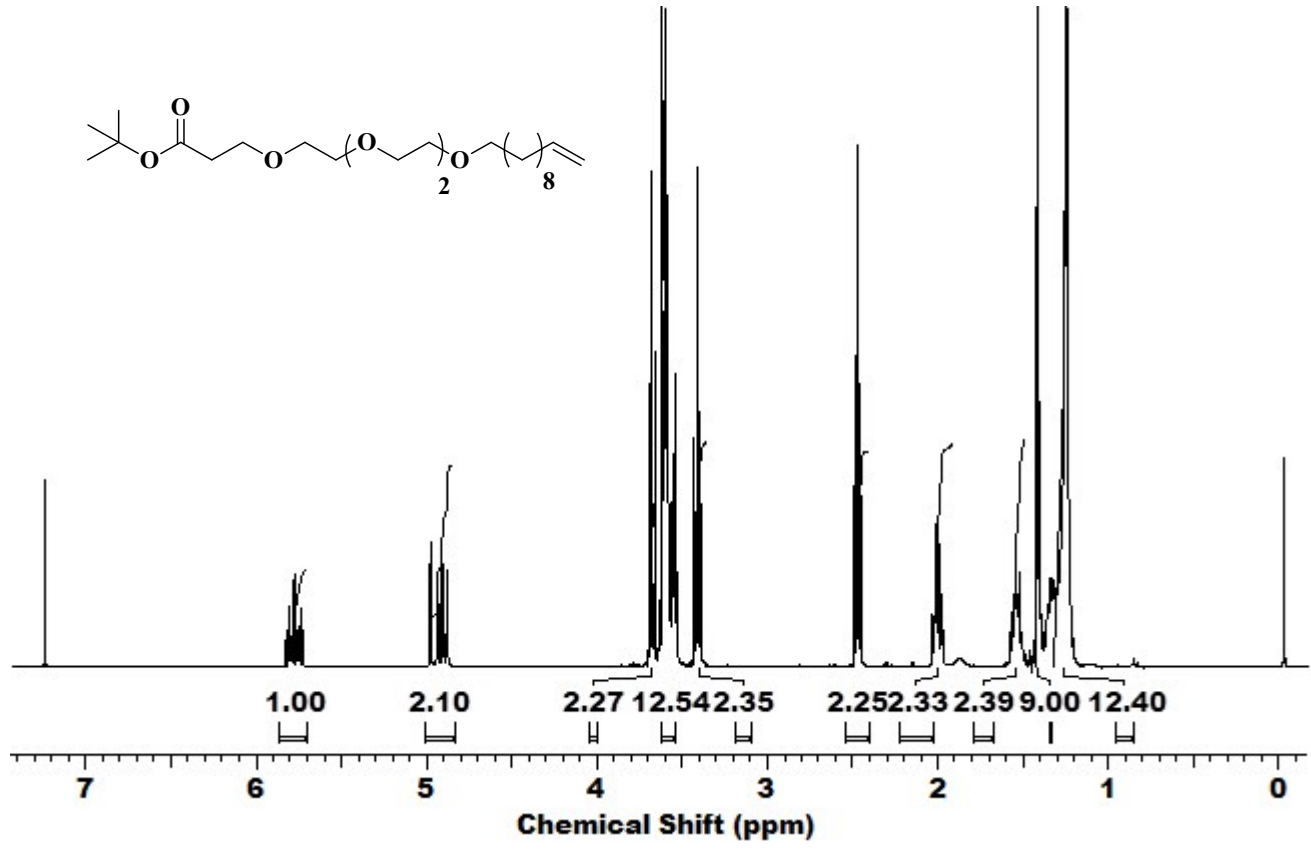
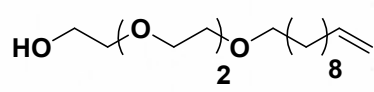
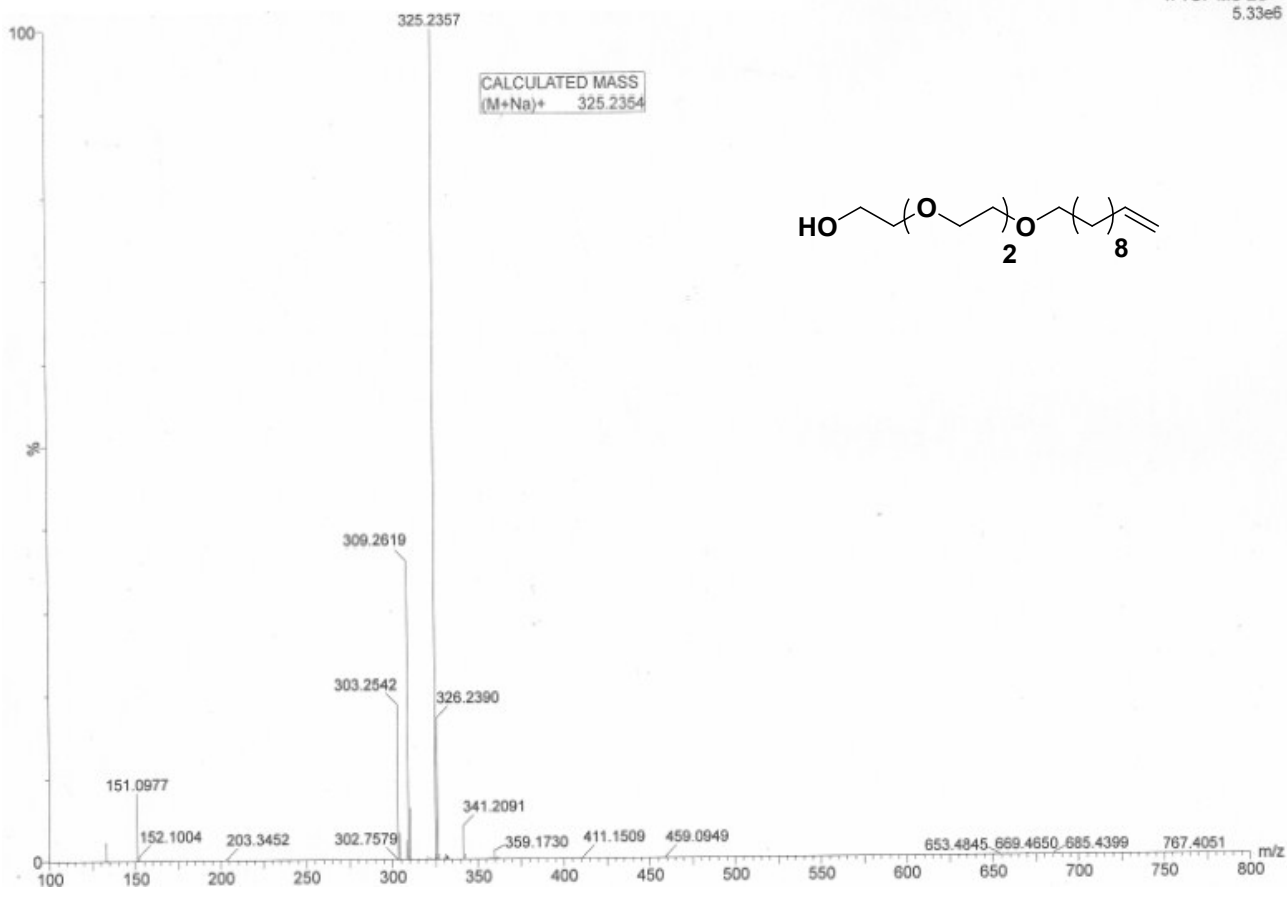
Mannose modified  $\beta$ -CD derivatives (**M-1**) were synthesized as described by García-Barrientos.<sup>1</sup>

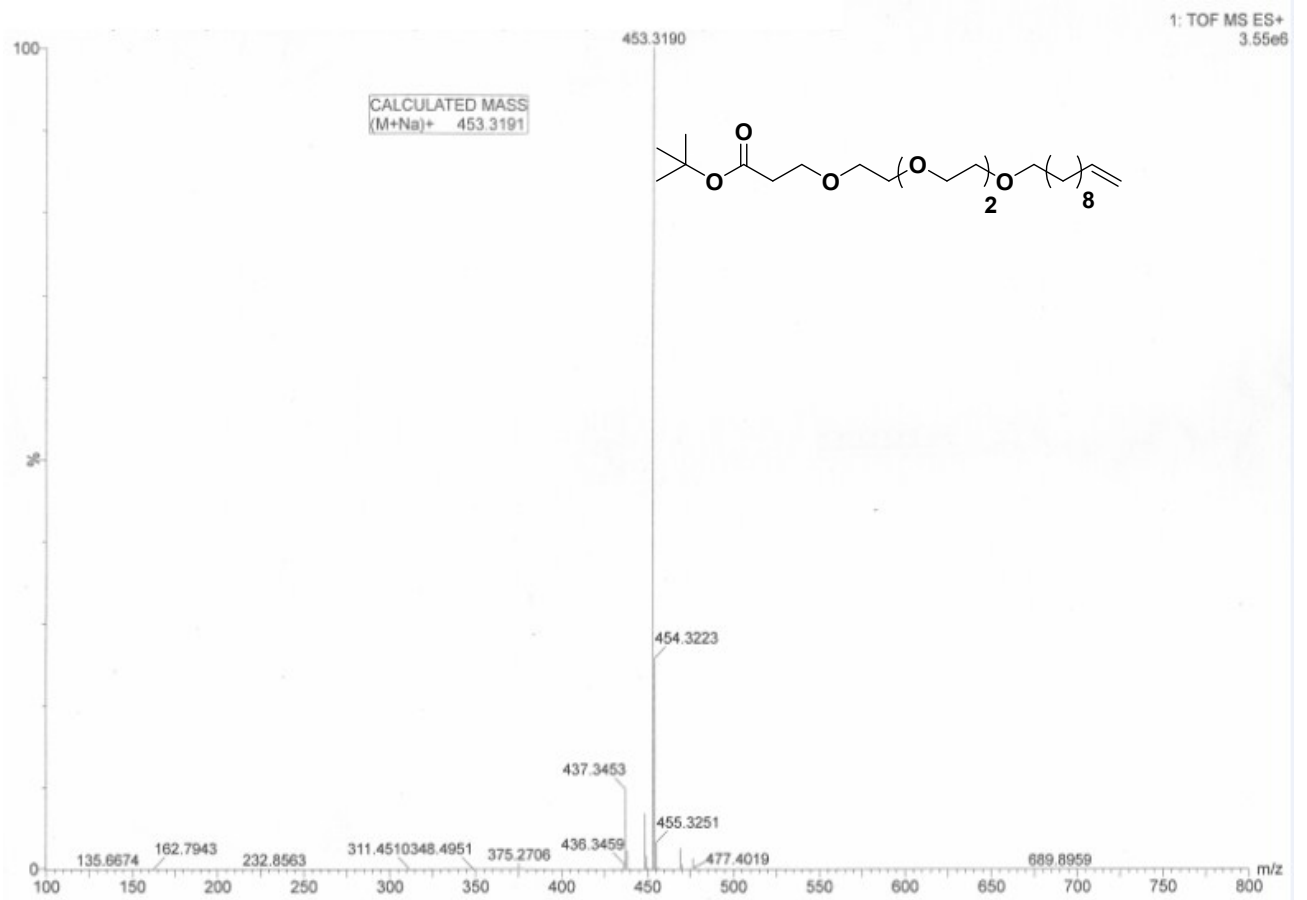
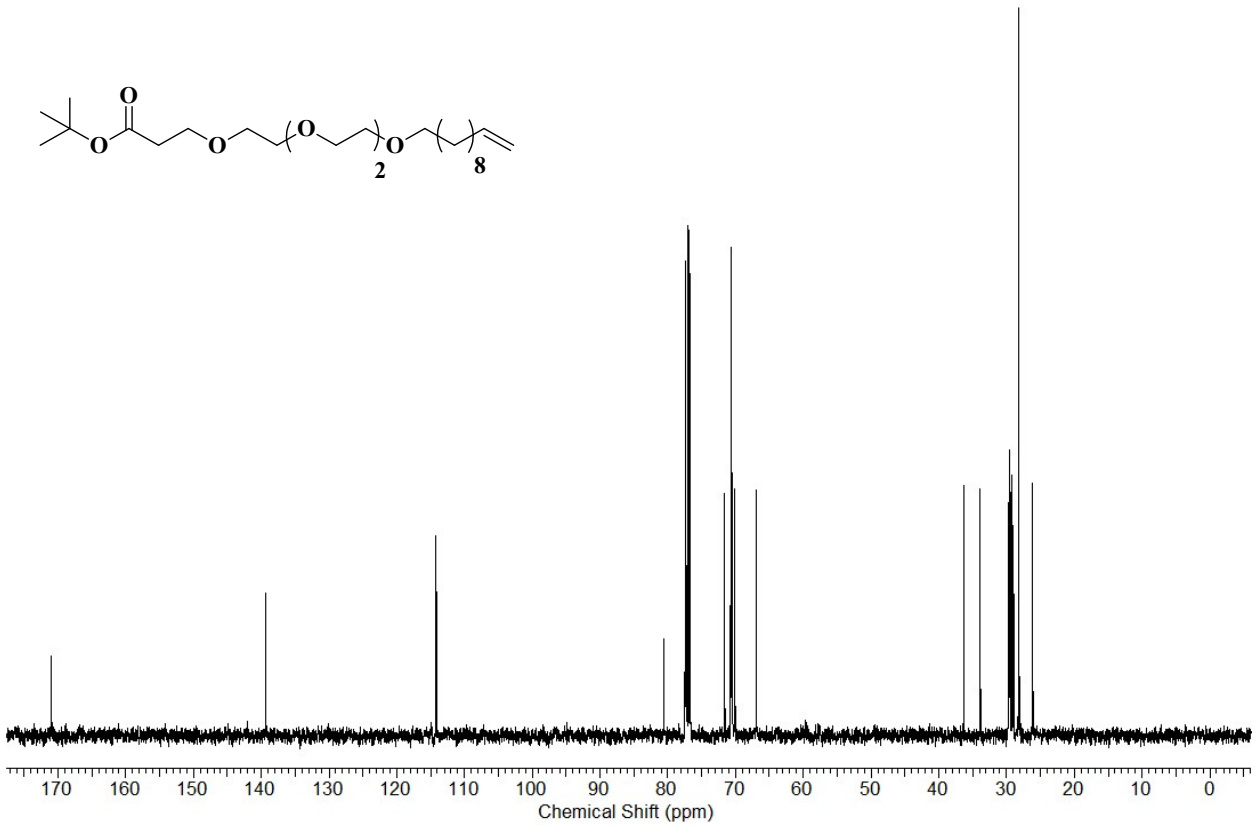
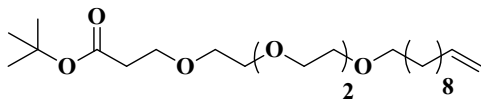
**M-1** <sup>1</sup>H NMR (400 MHz, MeOD-*d*<sub>4</sub>)  $\delta$  5.05 (bm, 7H), 4.83-4.83 (m, 7H), 3.90-3.82 (m, 29H), 3.79-3.73 (m, 21H), 3.68-3.58 (m, 33H), 3.46 (t, *J* = 9.30 Hz, 7H), 3.28-3.24 (m, 7H), 2.91-2.89 (m, 14H); <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>): 99.95, 99.90, 99.88, 99.82, 72.85, 77.83, 72.81, 72.80, 70.83, 70.80, 70.74, 70.66, 70.17, 66.51, 66.48, 60.82, 60.79, 32.44, 32.41. HRMS *m/z* C<sub>98</sub>H<sub>168</sub>O<sub>70</sub>S<sub>7</sub>: calc'd for [M+2Na]<sup>2+</sup>, 1367.3713; found, 1367.8798.

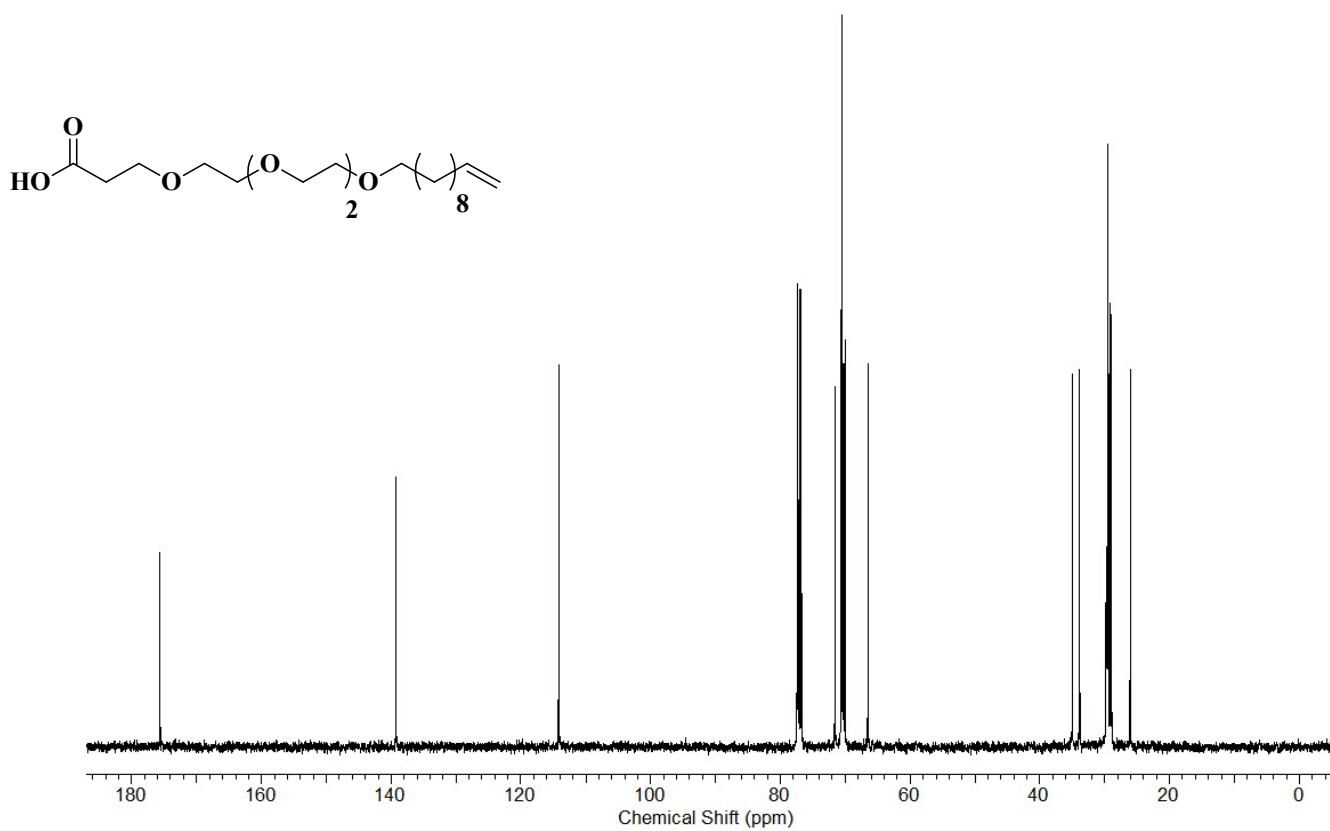
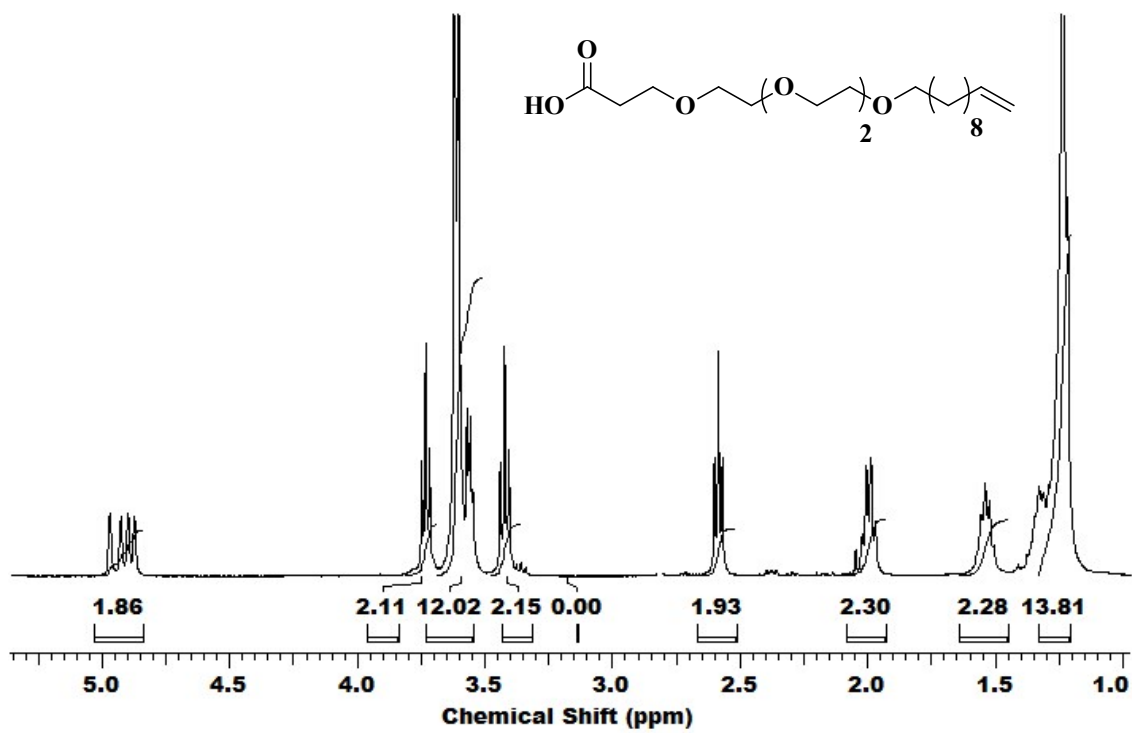


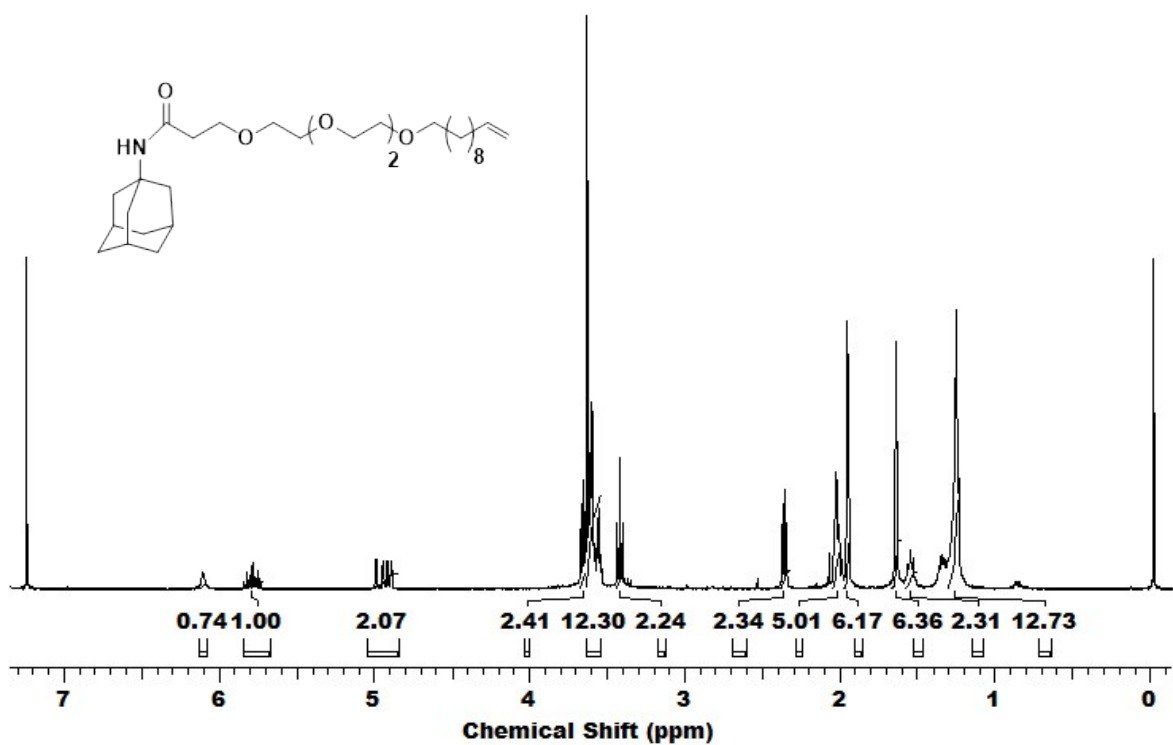
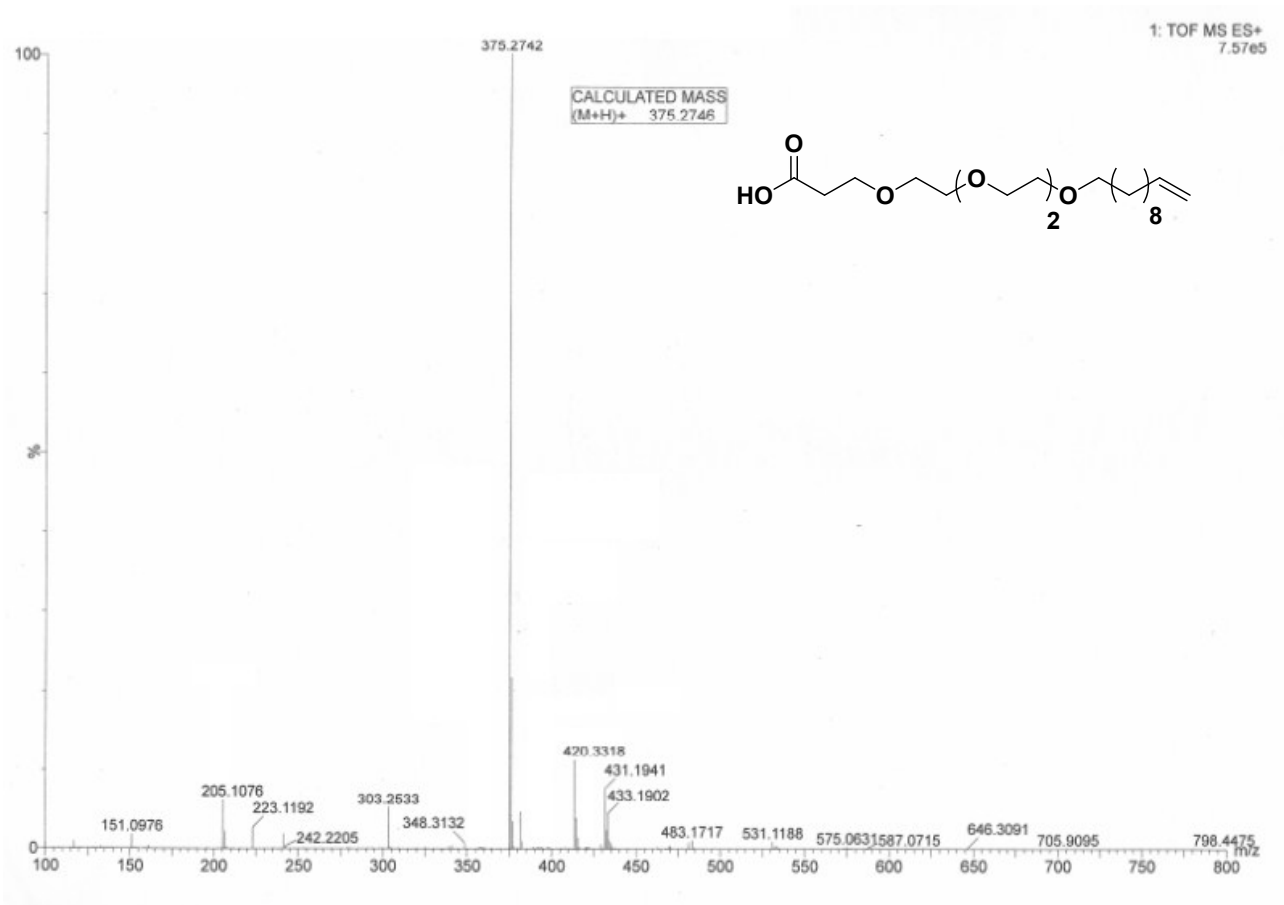
# NMR and HRMS of compounds.

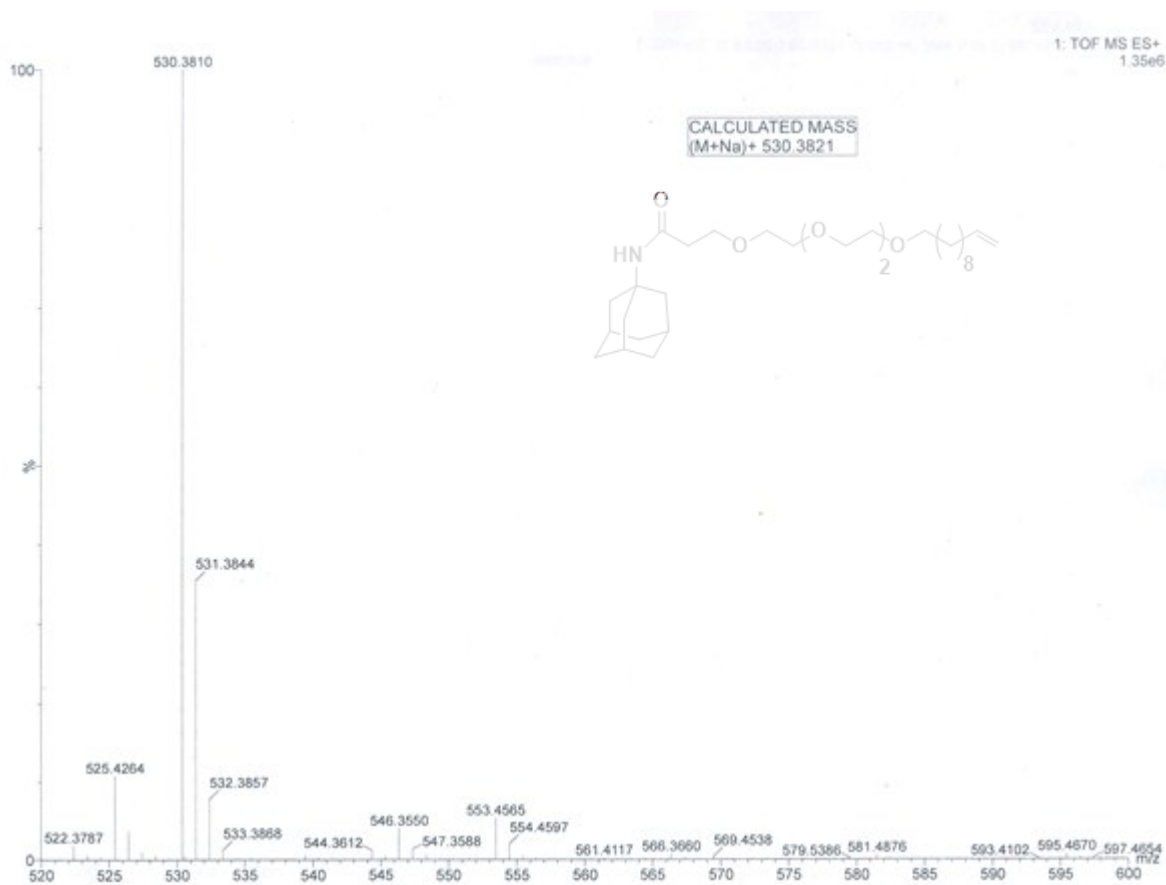
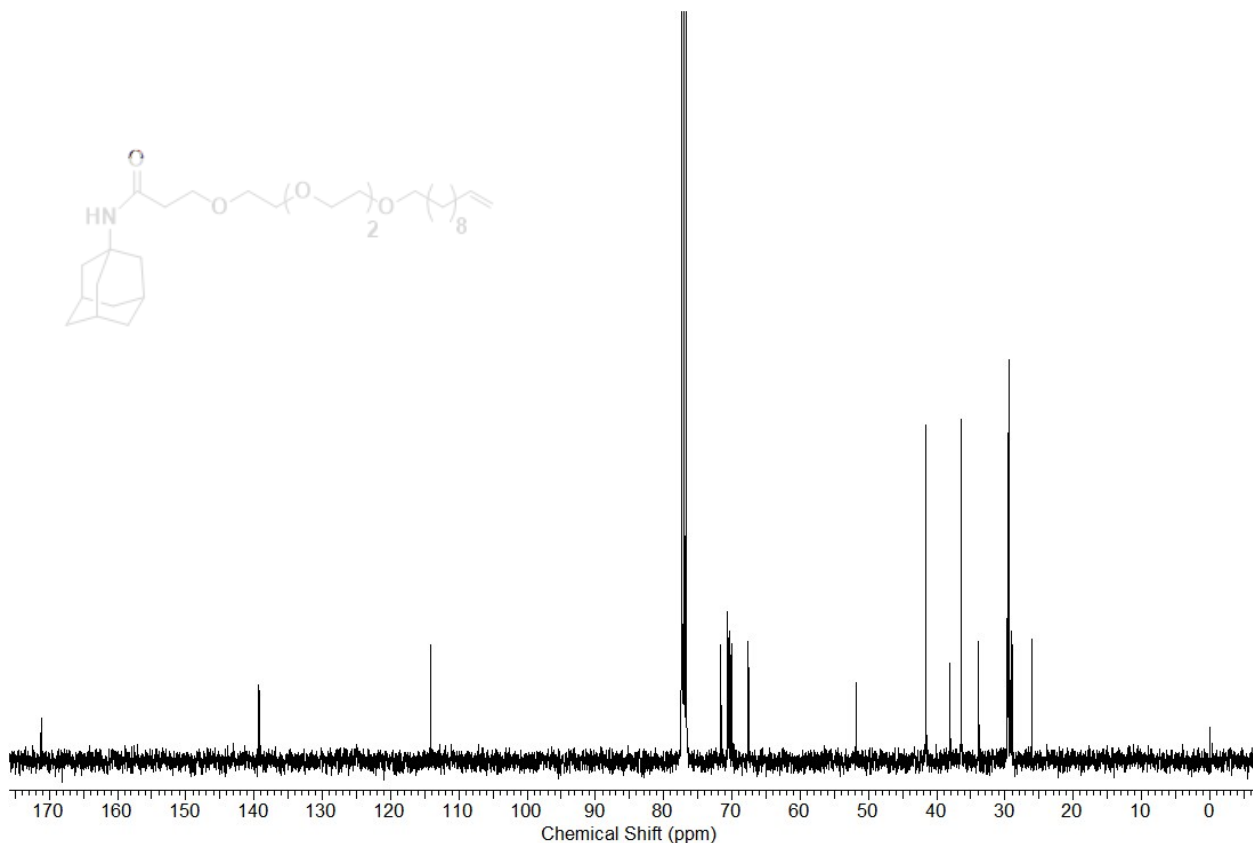








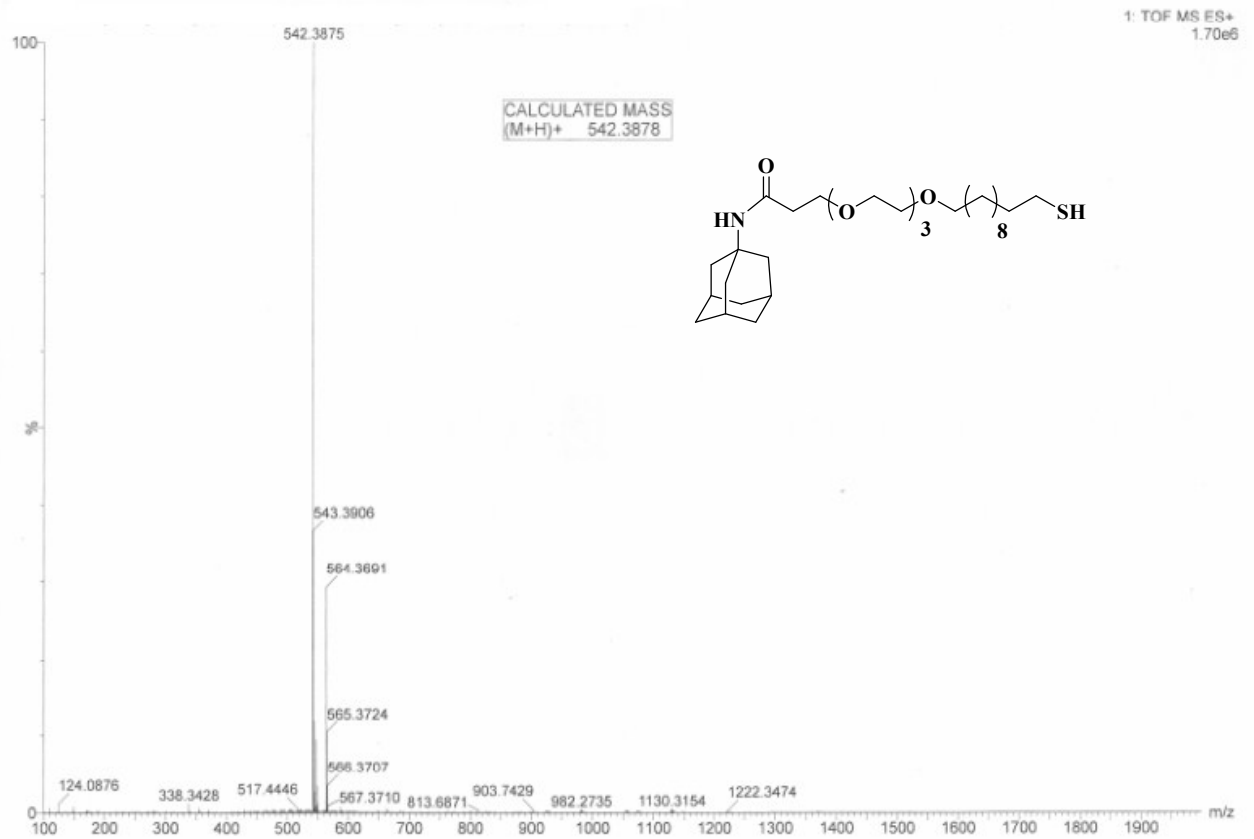
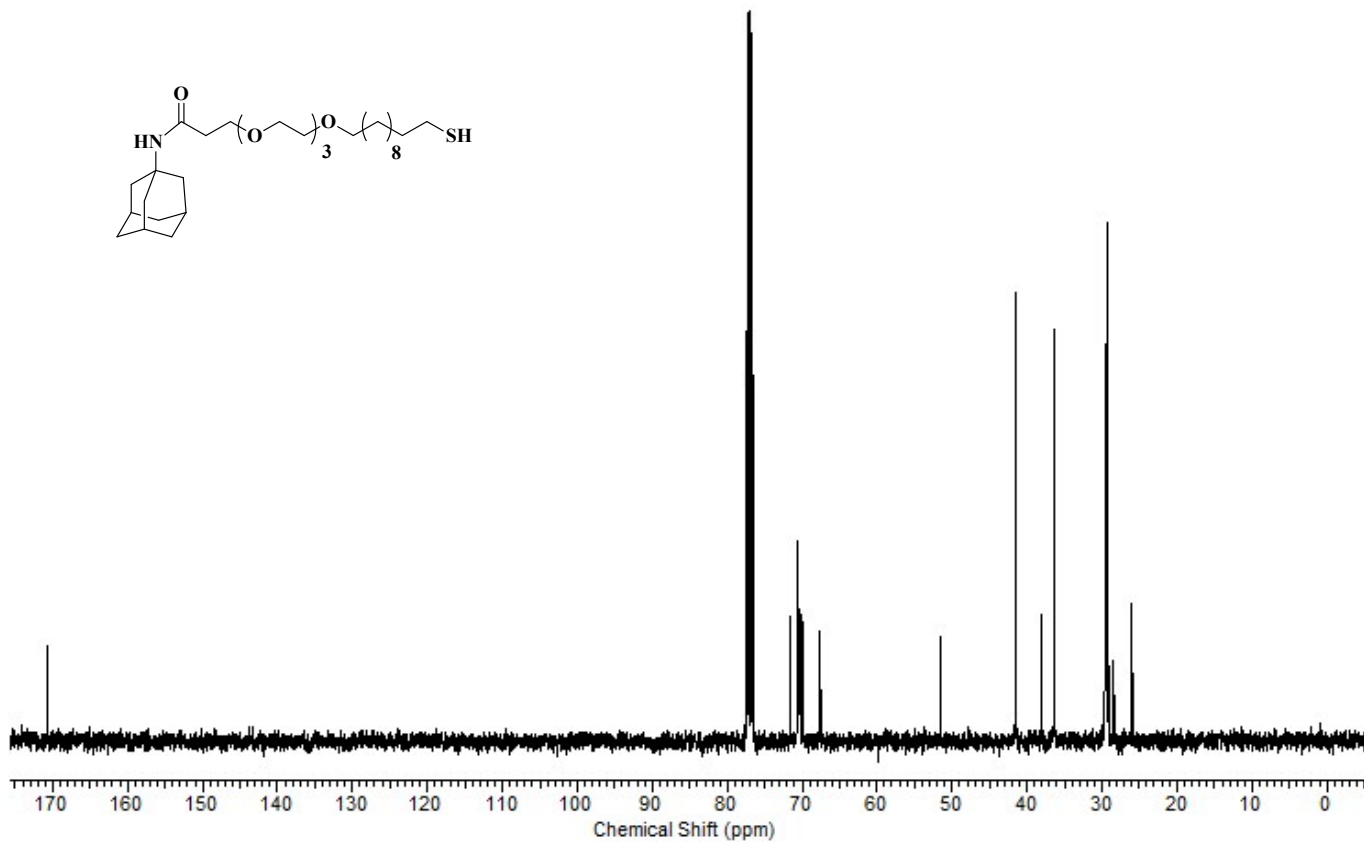


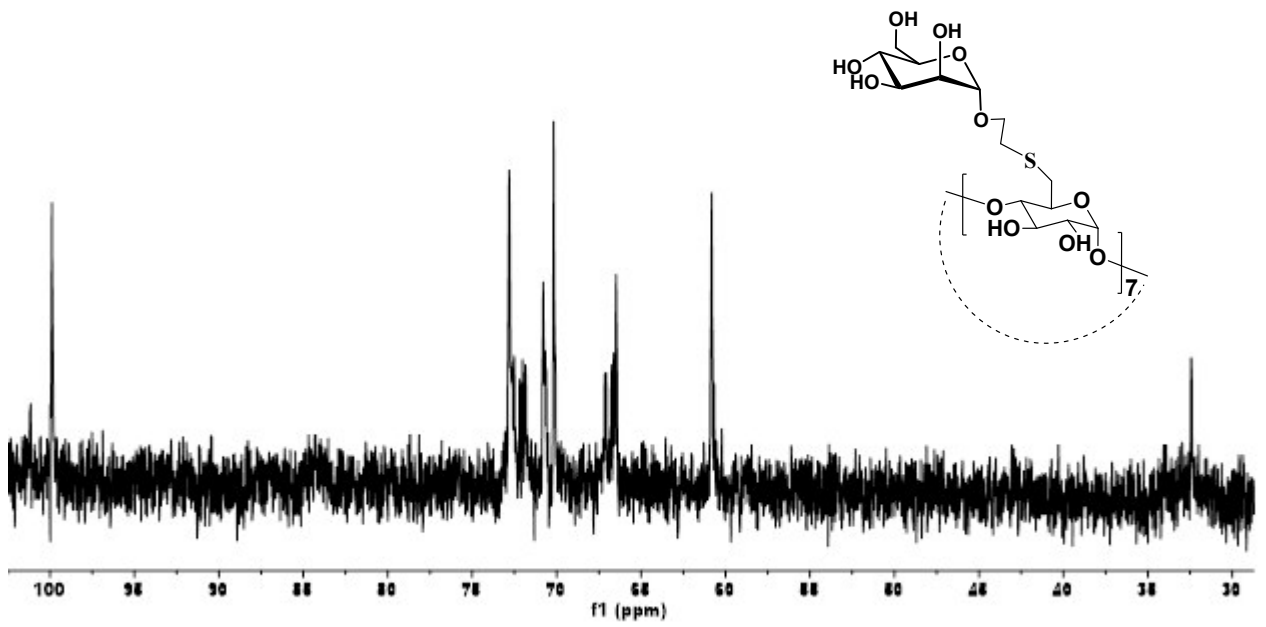
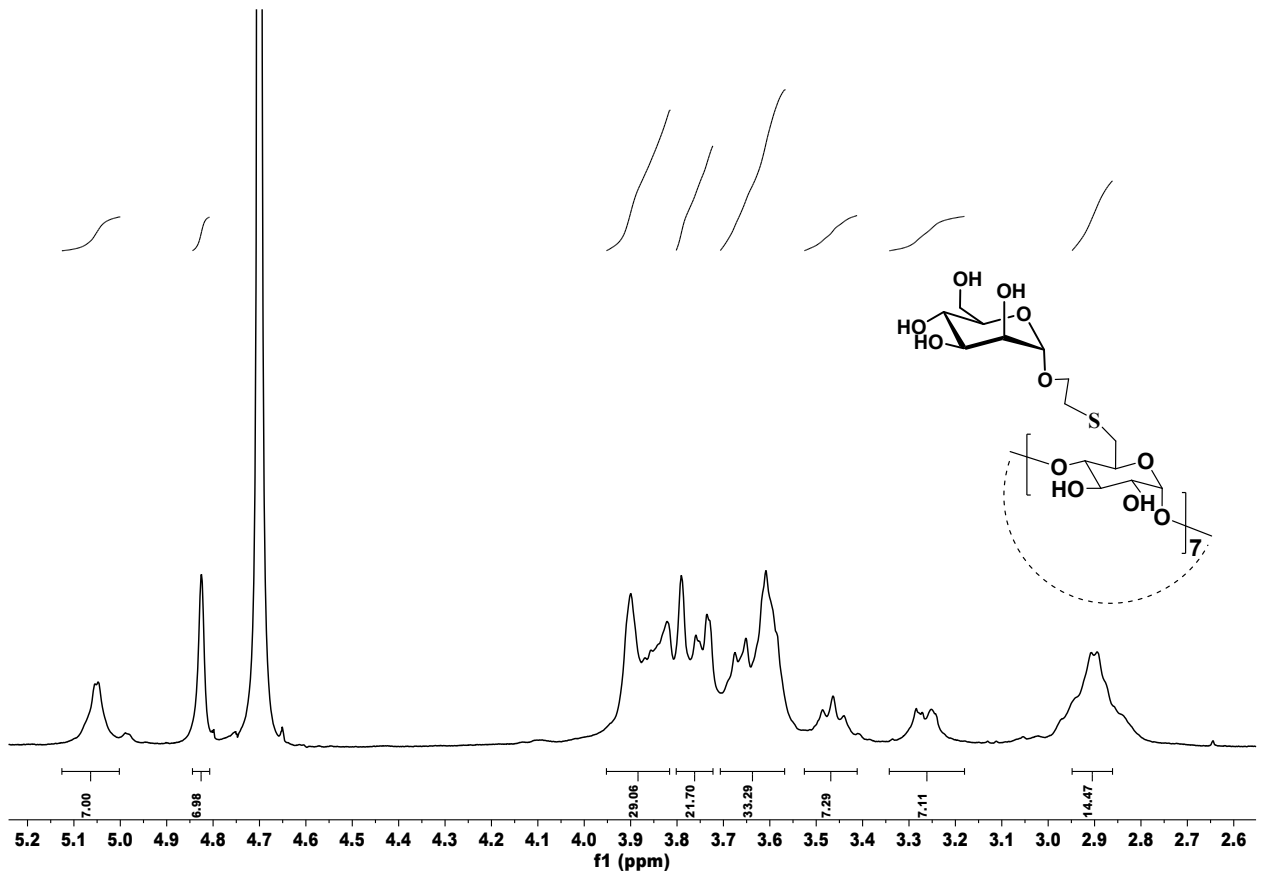


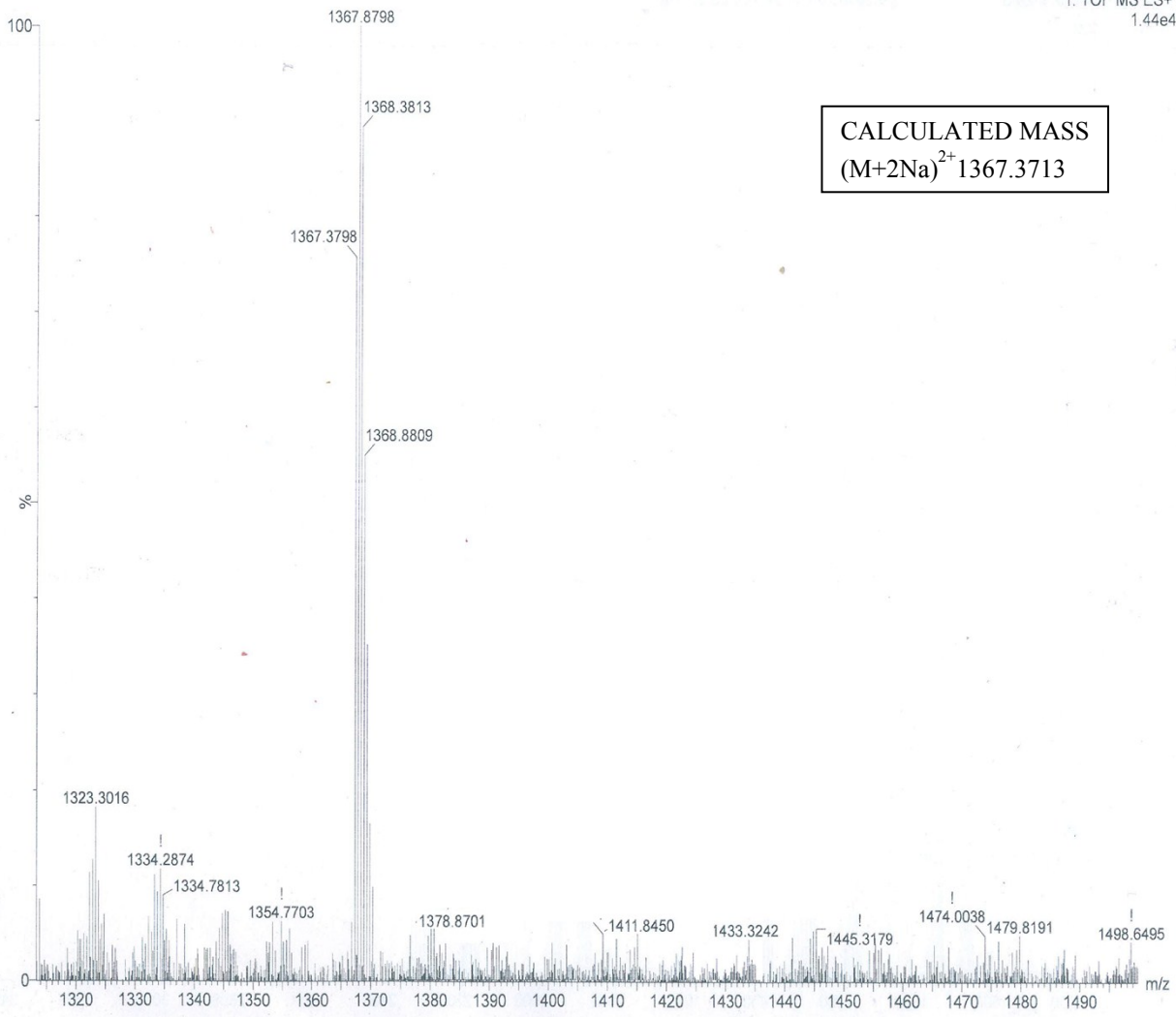




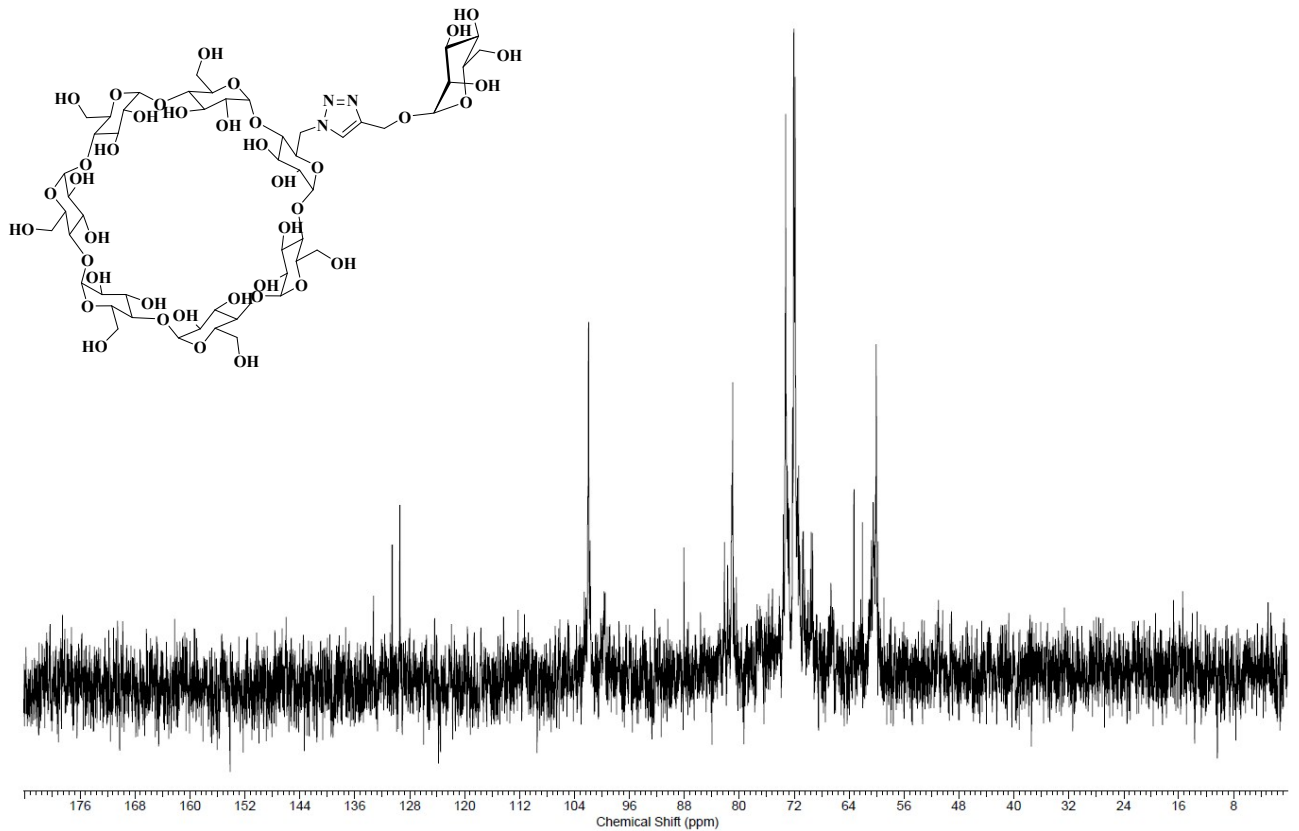
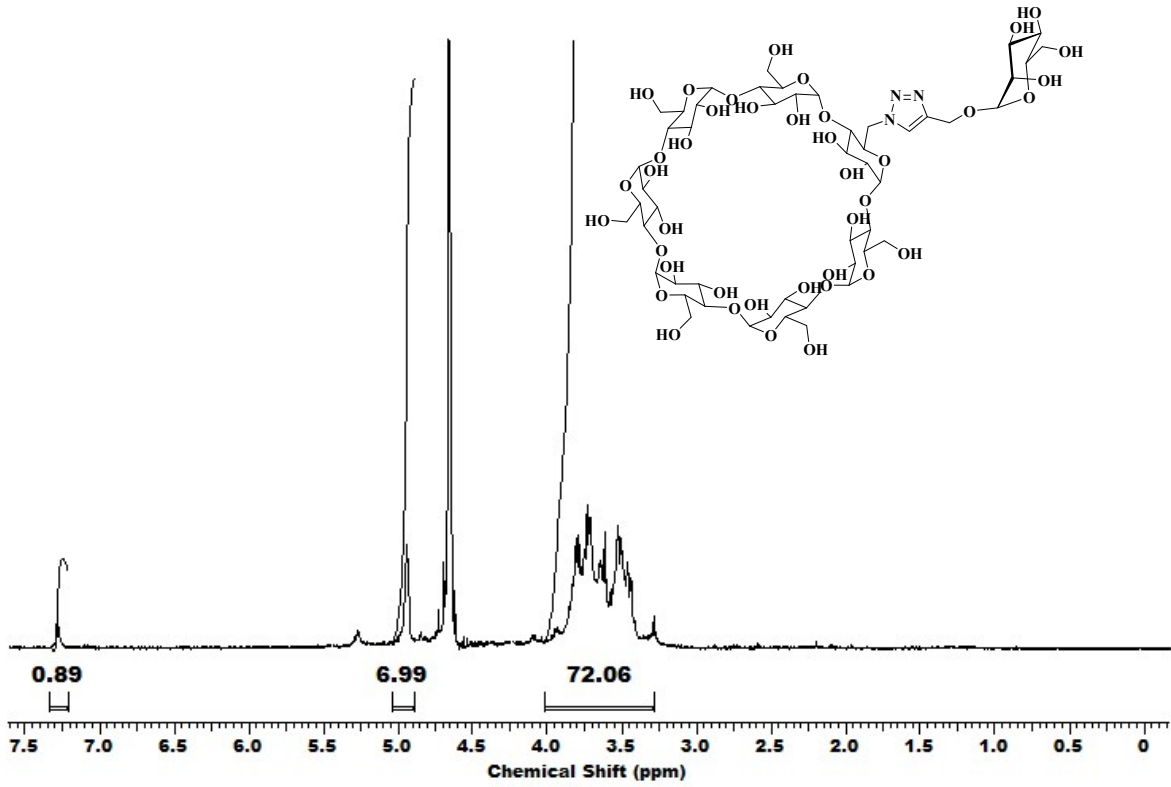


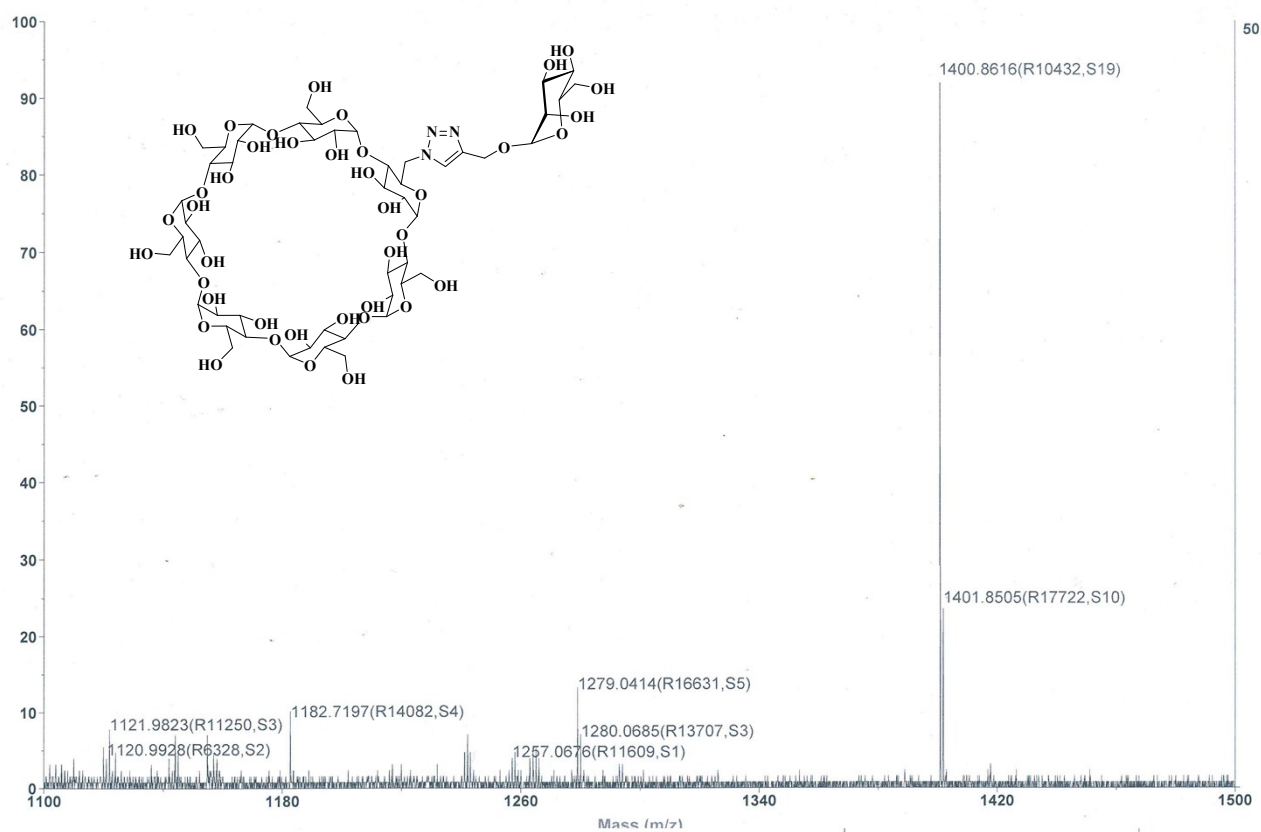






CALCULATED MASS  
(M+2Na)<sup>2+</sup> 1367.3713





## References.

1. A. G. Barrientos, J. J. G. Lopez, J. I. Garcia, F. O. Caballero, U. Uriel, A. V. Berenguel, F. S. Gonzalez, *Synthesis*, 2001, 1057-1064.