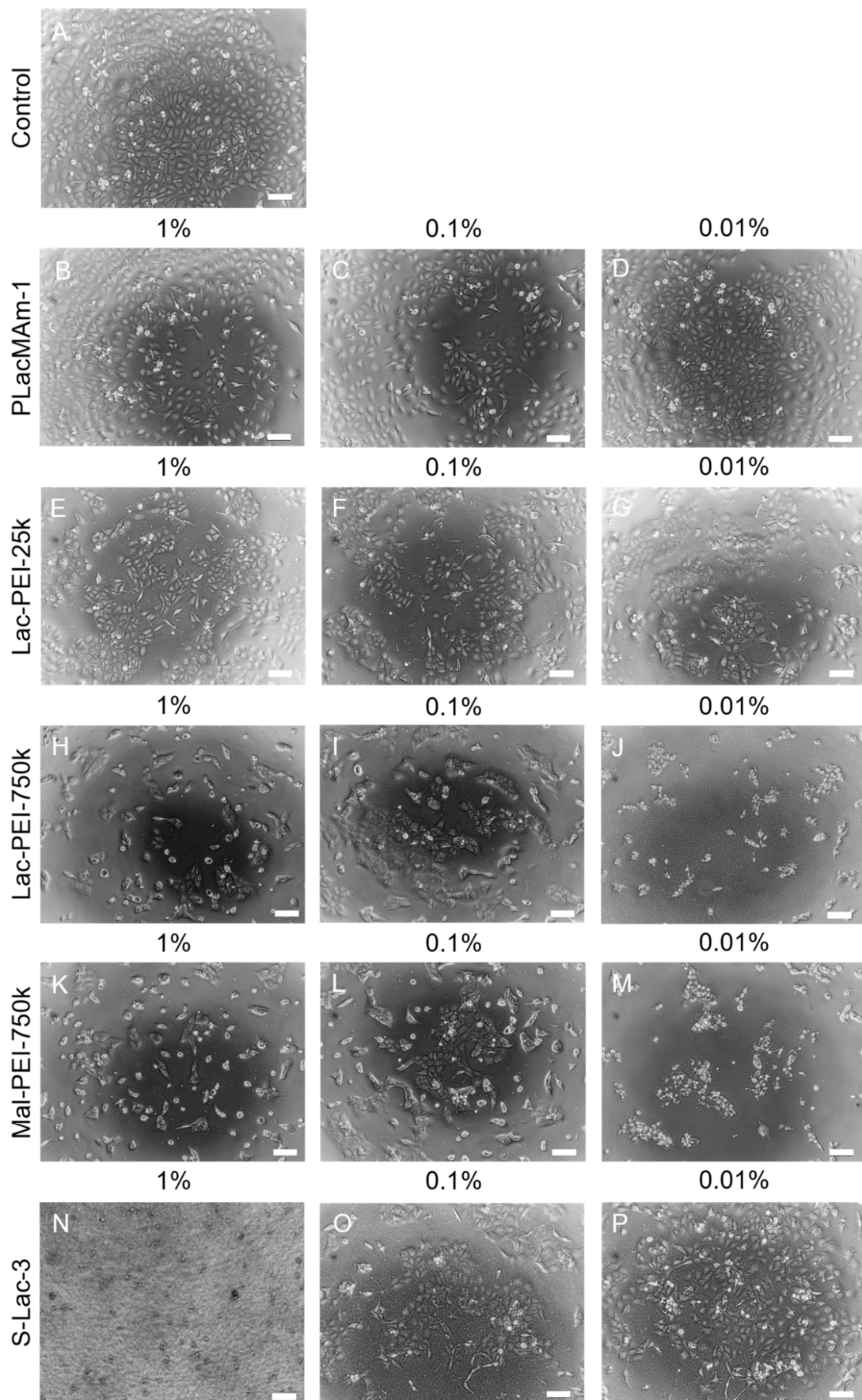


**Figure S1.** The cytotoxicity (A, C, E, G, I) and viability (B, D, F, H, J) assays of cultured HCE itself (Control), with different glycopolymers (in 1, 0.1, and 0.01% w/v concentration) and PEI (MW 750k). The intensity of luminescence (viability; y-axis) and fluorescence (cytotoxicity; y-axis) were measured and at various time points (0-48h; x-axis) by Microplate Reader. The data were normalised to Control at time point 0. Interleaved symbols were used for every time point in the graphs.



**Figure S2.** Morphology of cultured HCE itself (Control), with different glycopolymers (in 1, 0.1 and 0.01% w/v concentration) and PEI after 48h. Light microscopy, scale bars represent 100  $\mu\text{m}$ .

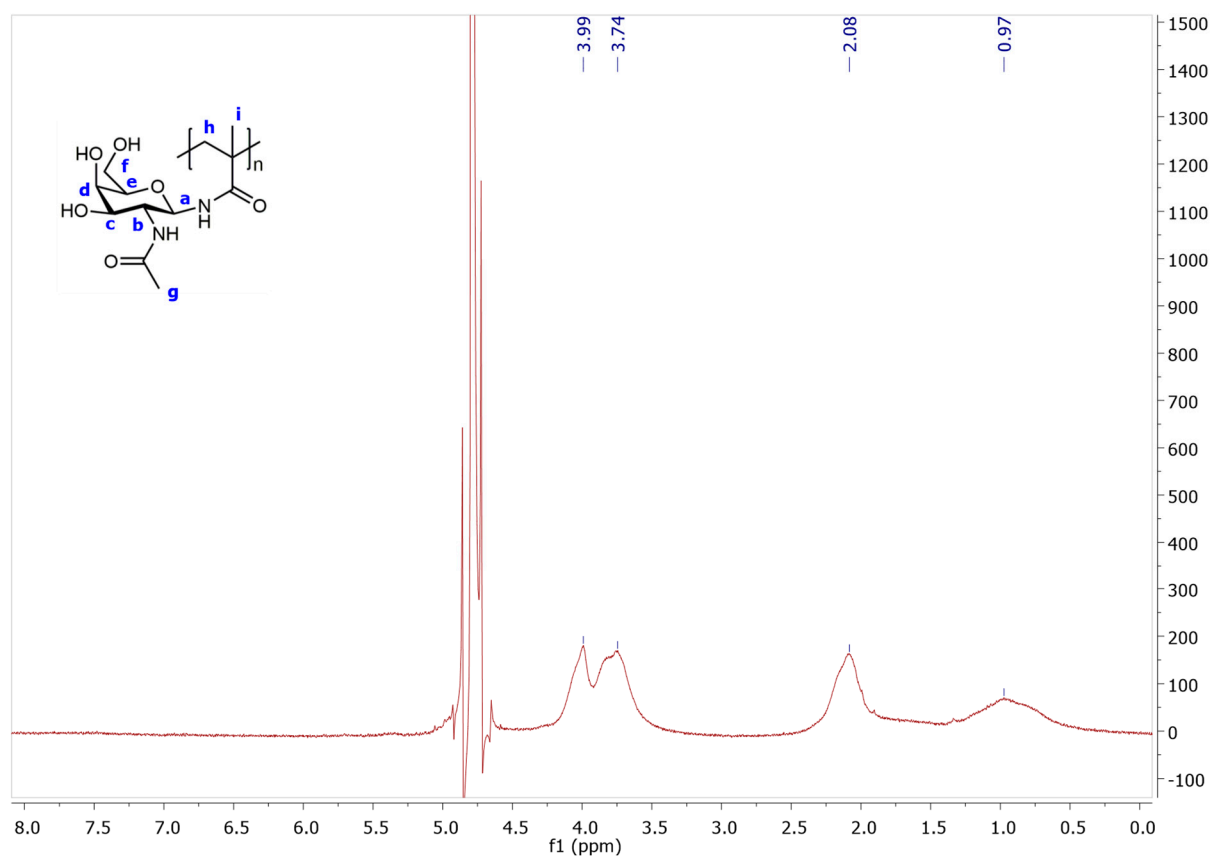


Figure S3.  $^1\text{H}$  NMR spectrum of PGalNAcMAM.

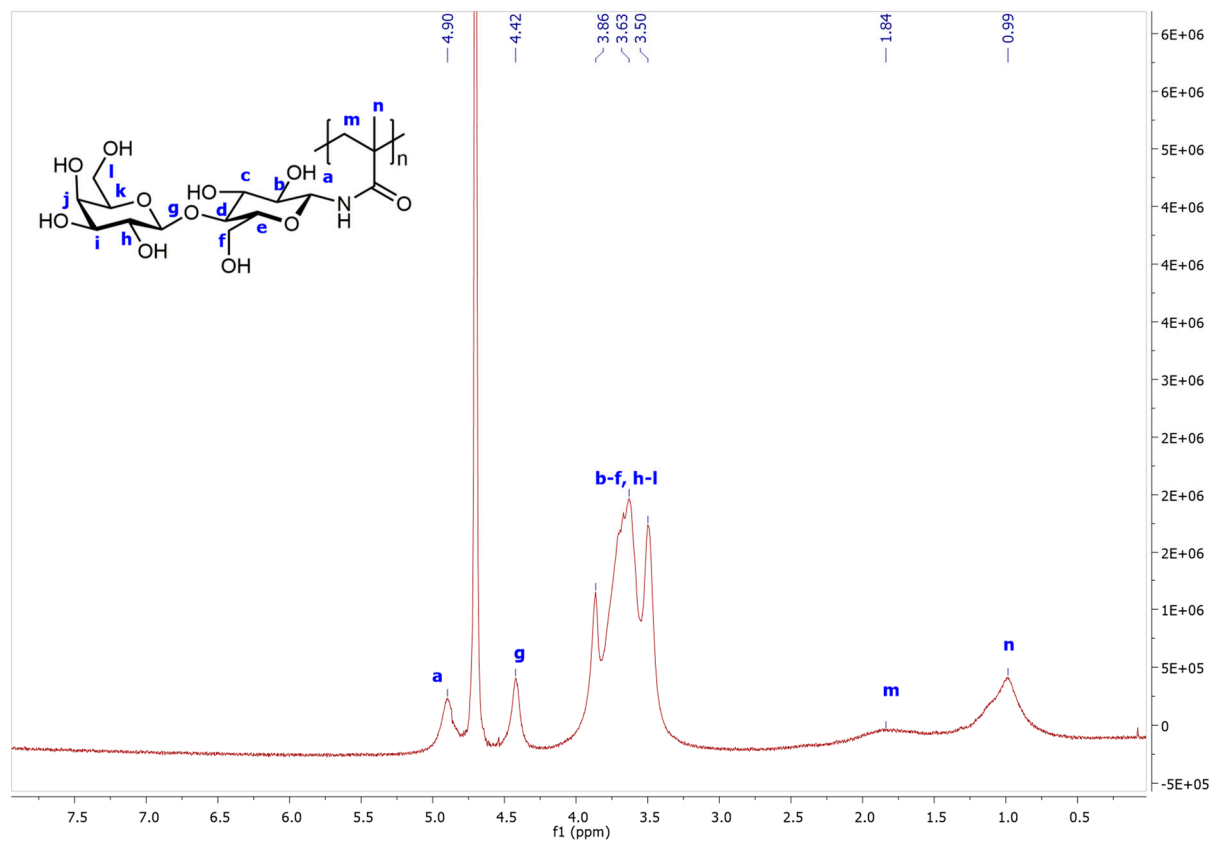


Figure S4.  $^1\text{H}$  NMR spectrum of PLacMAM-1.

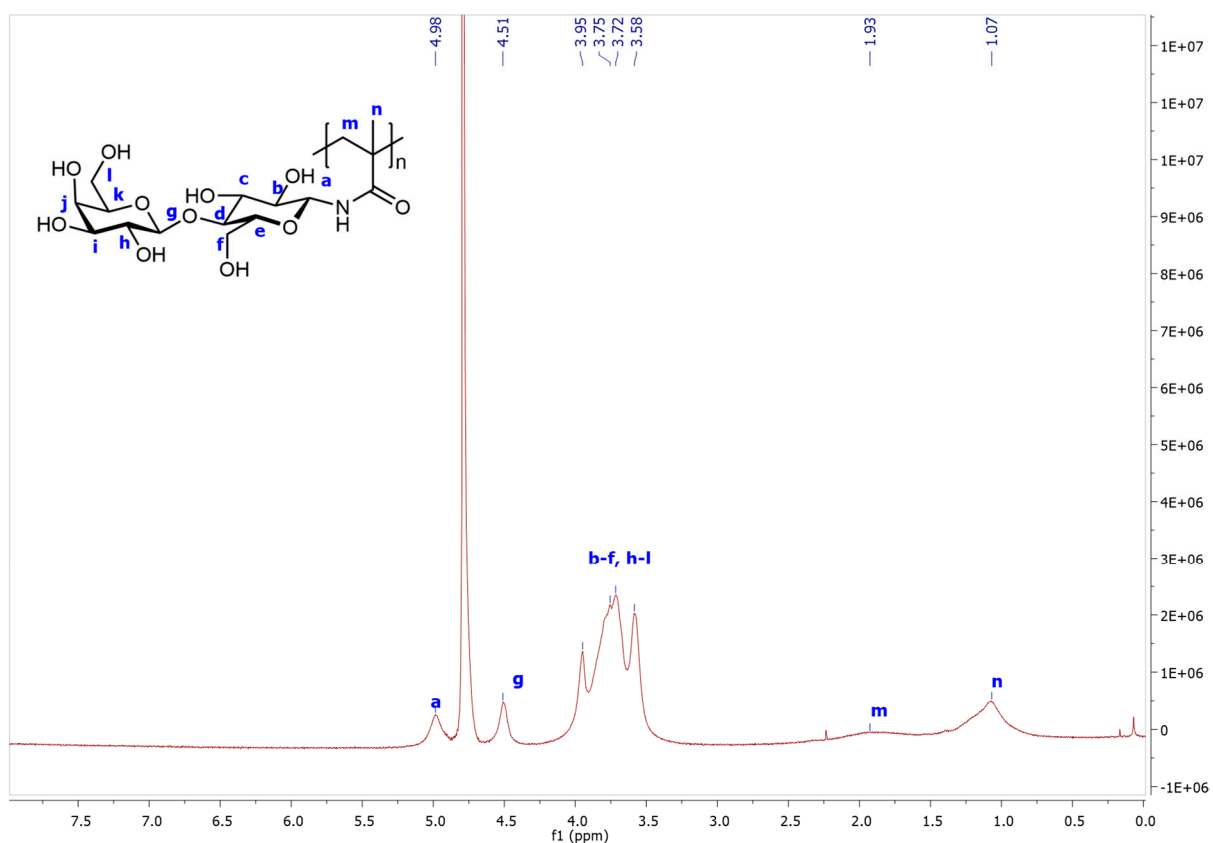


Figure S5.  $^1\text{H}$  NMR spectrum of PLacMAM-2.

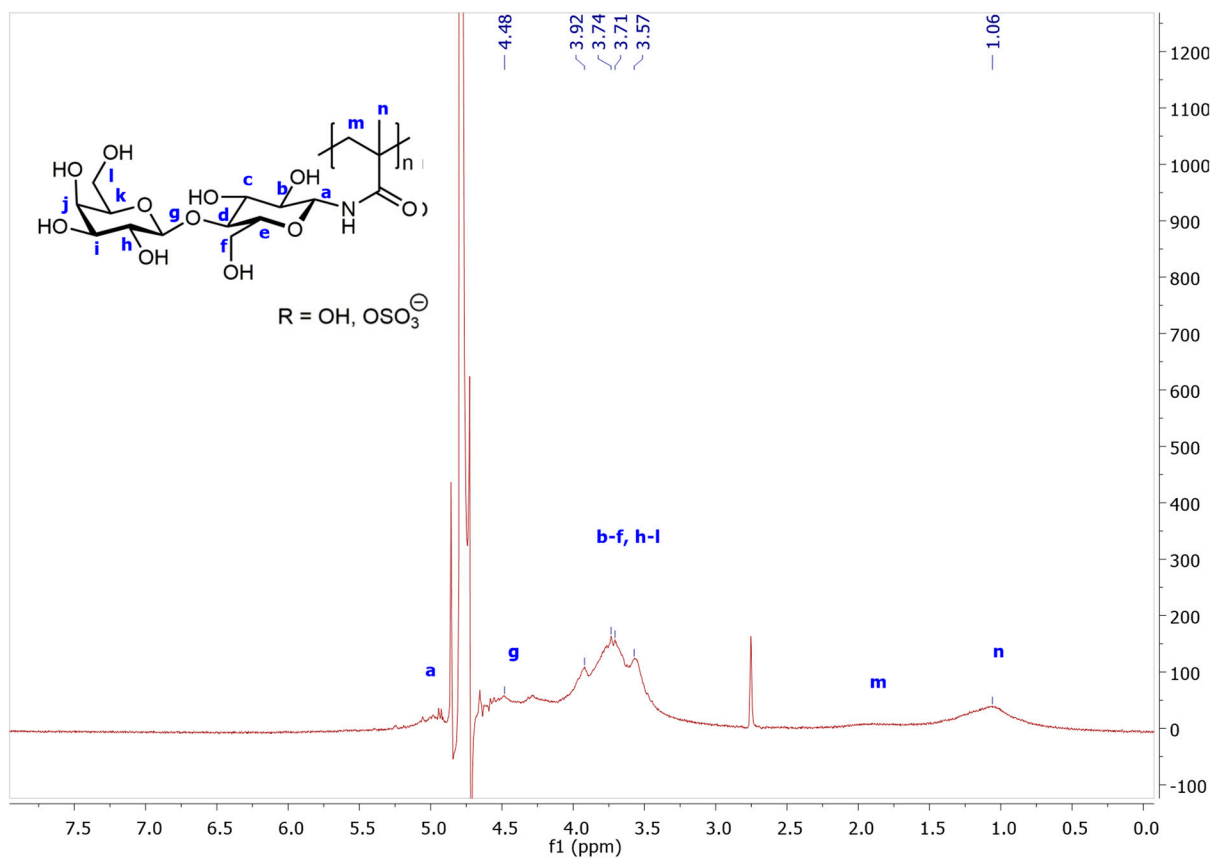


Figure S6.  $^1\text{H}$  NMR spectrum of S-Lac-1.

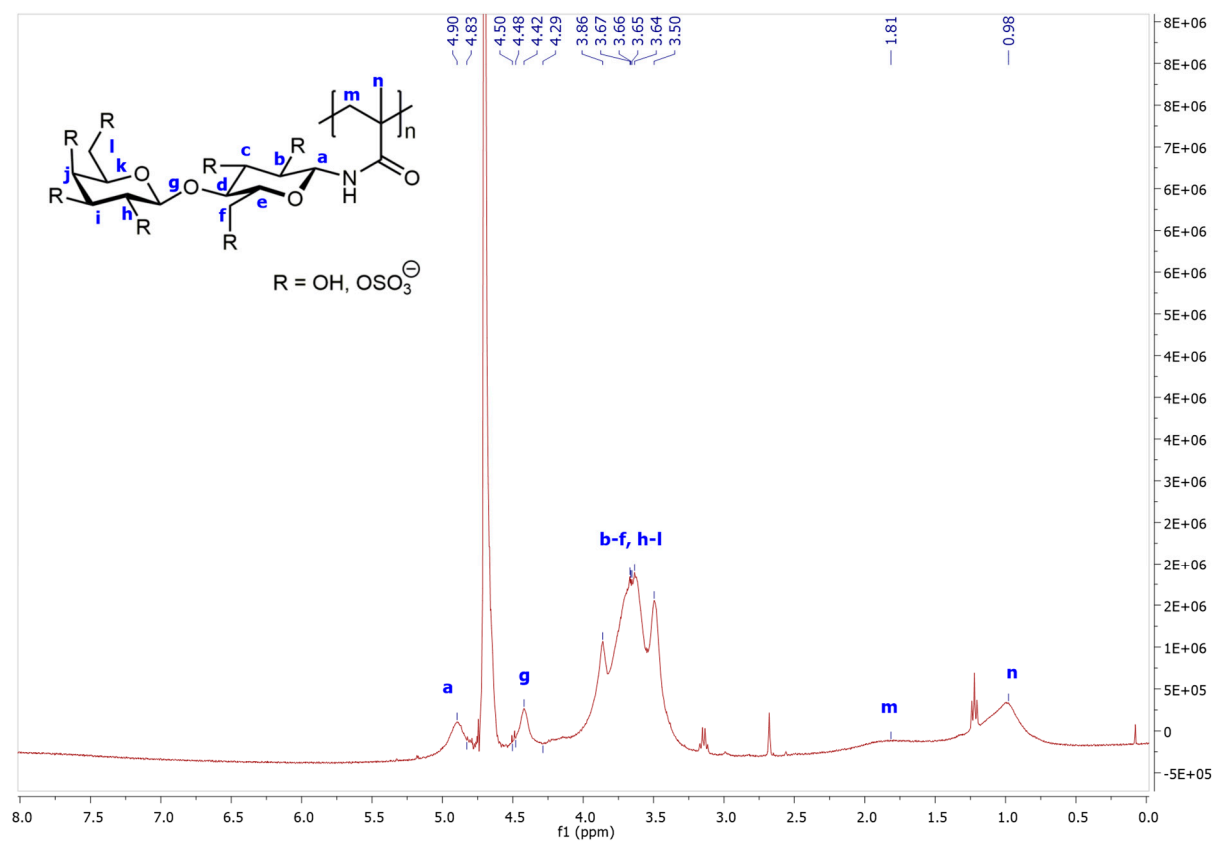


Figure S7. <sup>1</sup>H NMR spectrum of S-Lac-2.

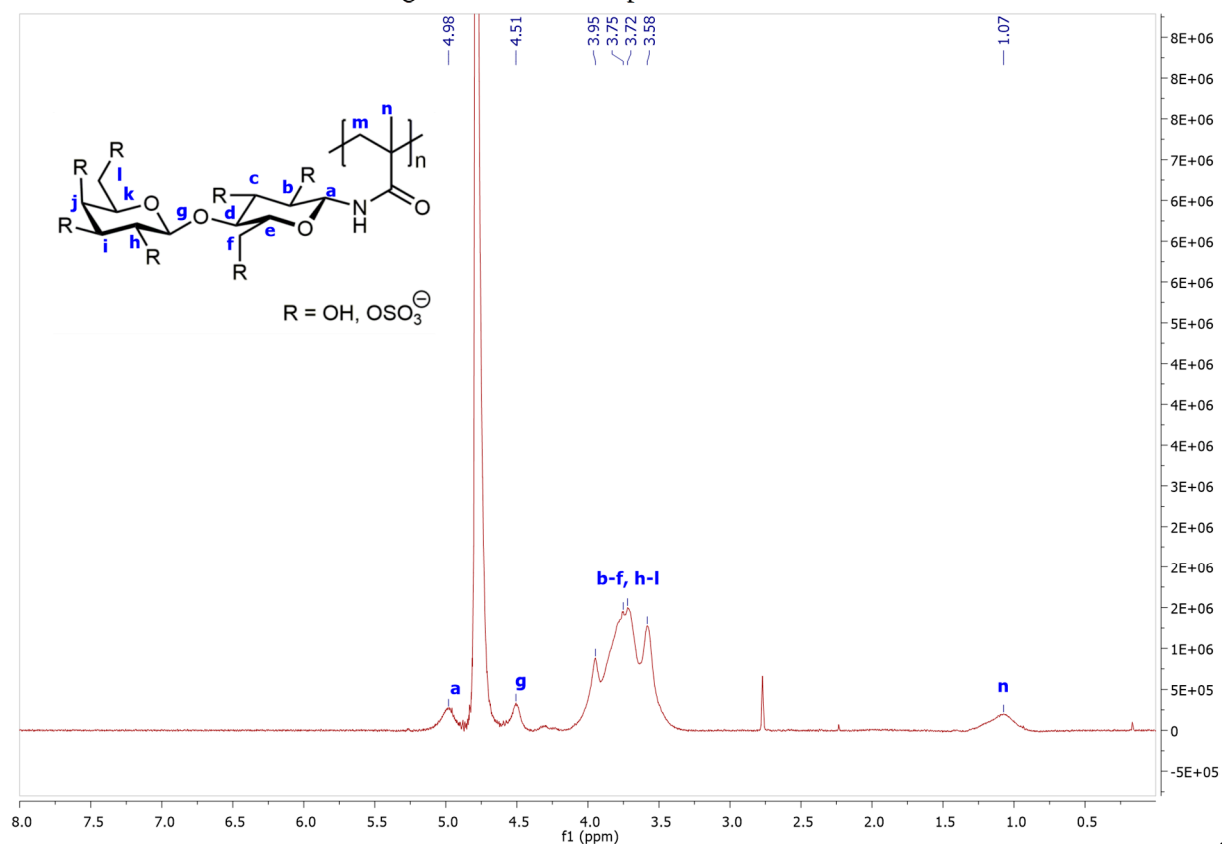


Figure S8. <sup>1</sup>H NMR spectrum of S-Lac-3.

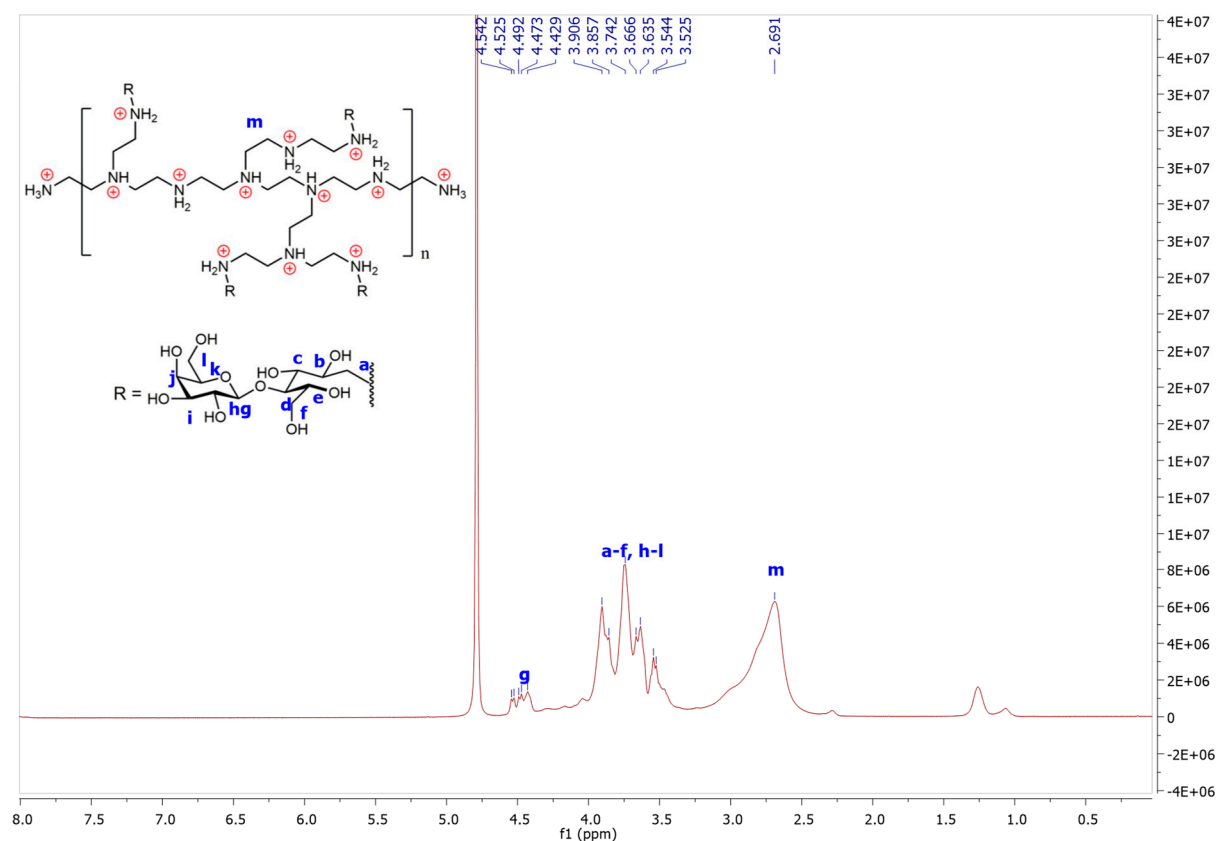


Figure S9.  $^1\text{H}$  NMR spectrum of Lac-PEI-1.8k.

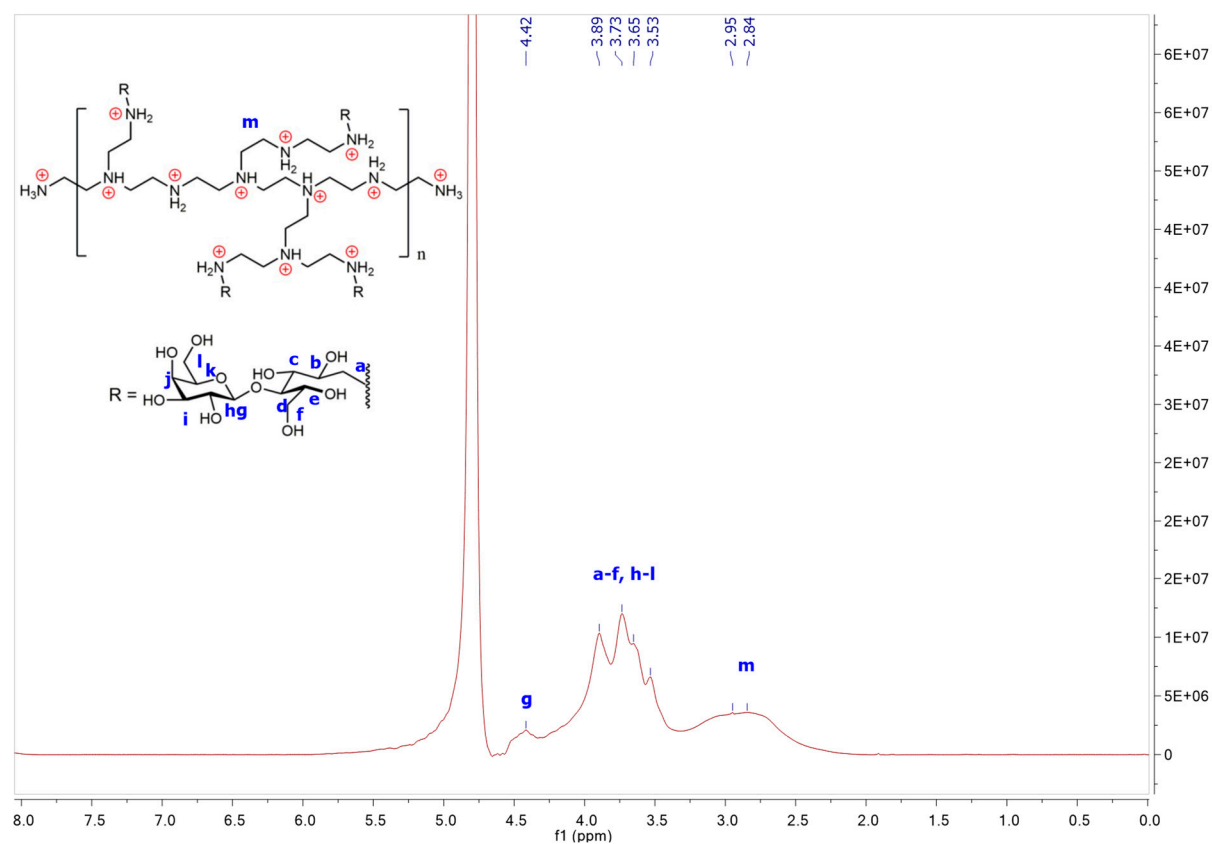


Figure S10.  $^1\text{H}$  NMR spectrum of Lac-PEI-10k.

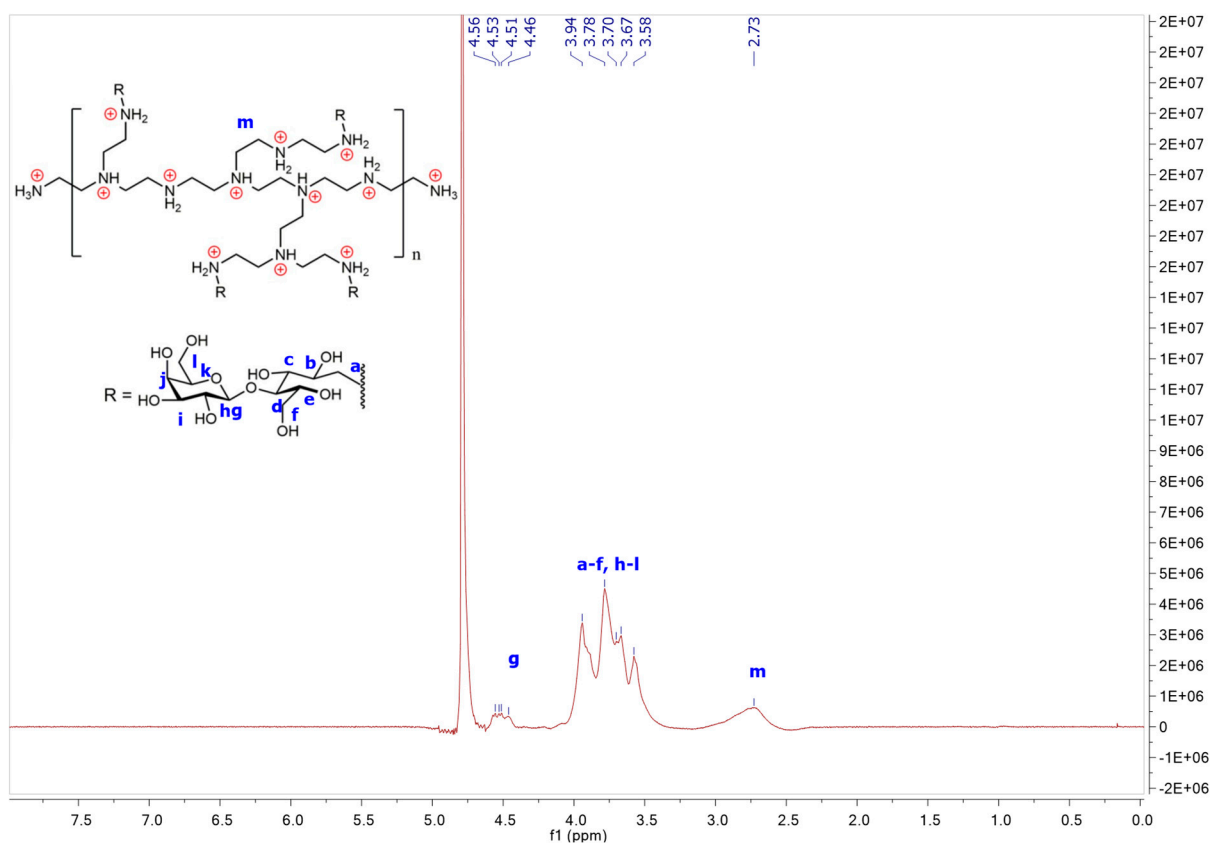


Figure S11.  $^1\text{H}$  NMR spectrum of Lac-PEI-25k.

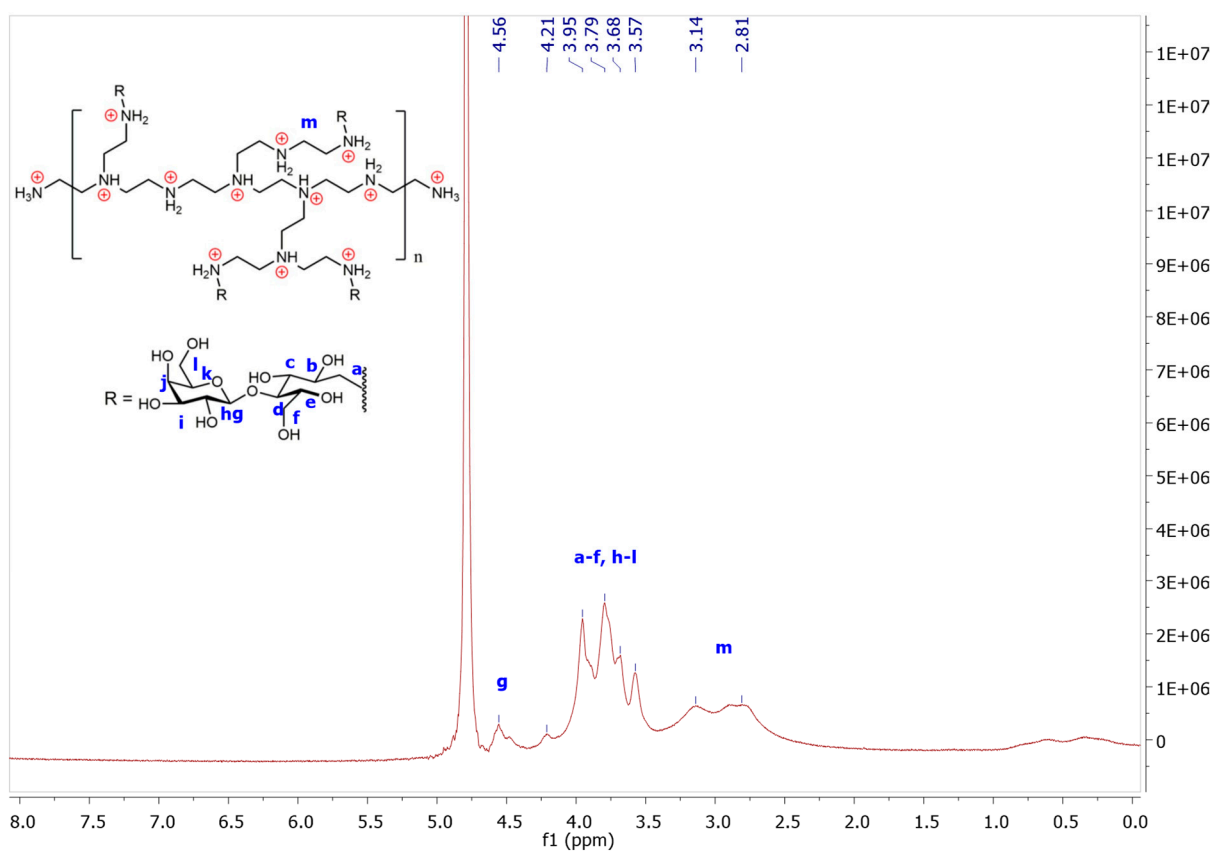


Figure S12.  $^1\text{H}$  NMR spectrum of Lac-PEI-750k.



**Figure S13.**  $^1\text{H}$  NMR spectrum of Mal-PEI-750k.