Supplementary Materials

The first synthesis of periodic and alternating glycopolymers by RAFT polymerization: A novel synthetic pathway for glycosaminoglycan mimics

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1. ^{1}H and ^{13}C NMR spectra of vinyl monomers (MalVE, LacVE and MalMI)

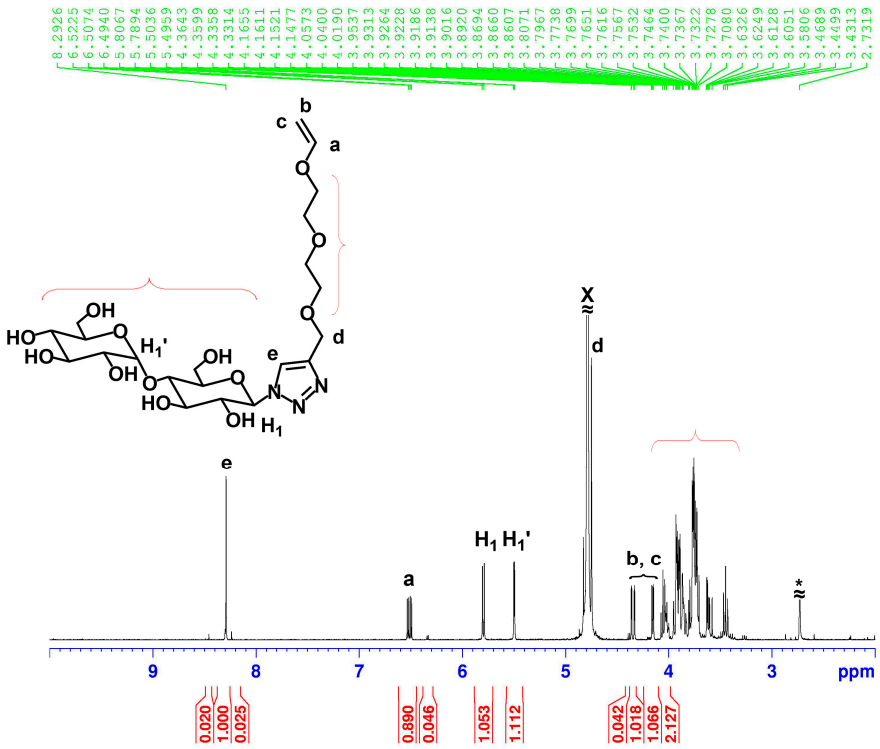


Fig. S1-1. ^{1}H NMR spectrum of **MalVE** in D_2O (x and *; remaining solvents).

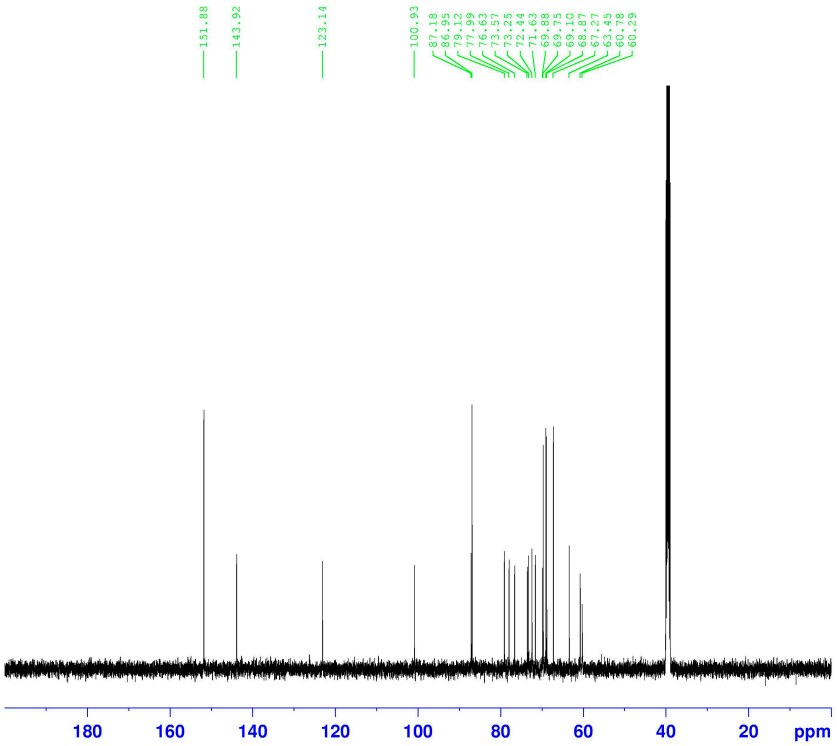


Fig. S1-2. ^{13}C NMR spectrum of **MalVE** in D_2O.

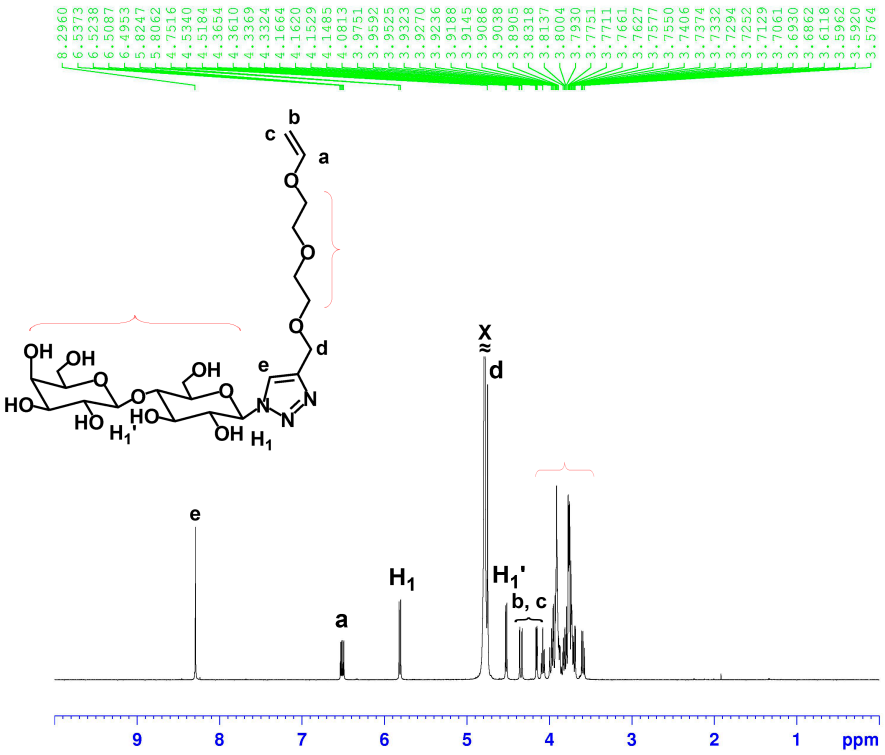


Fig. S1-3. ^{1}H NMR spectrum of **LacVE** in D_2O (x; remaining solvent).

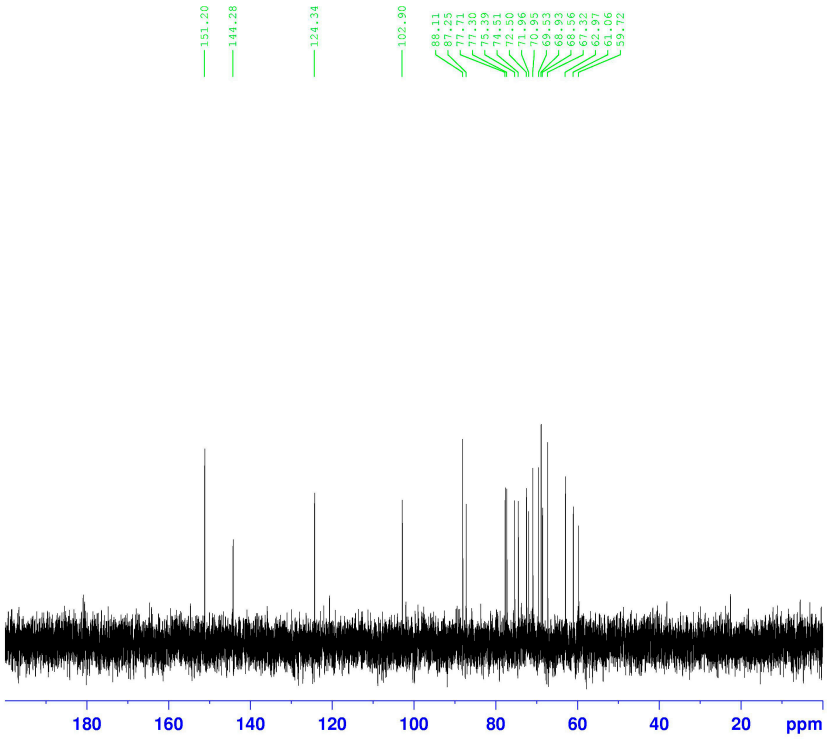


Fig. S1-4. ^{13}C NMR spectrum of **LacVE** in D_2O.

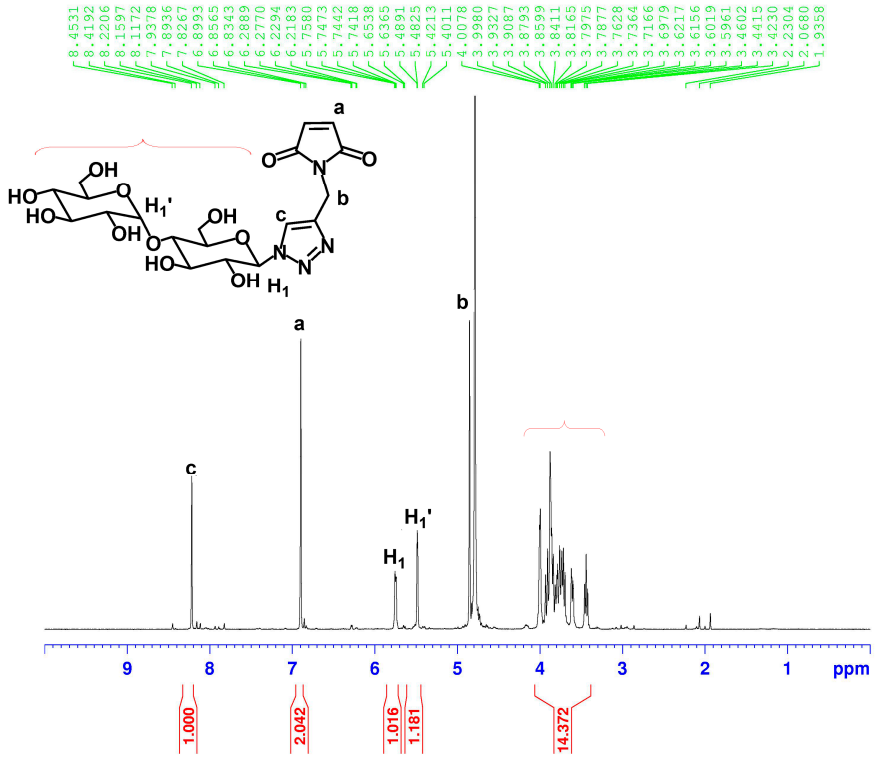


Fig. S1-5. ^{1}H NMR spectrum of **MalMI** in D_2O (x; remaining solvent).

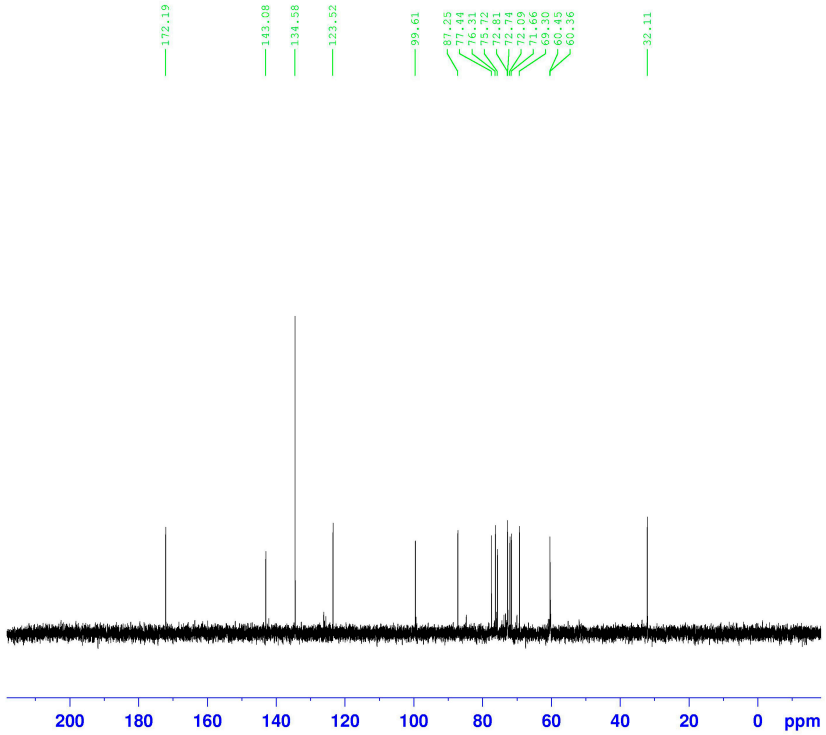


Fig. S1-6. ^{13}C NMR spectrum of **MalMI** in D_2O.

2. Comparison of copolymerization of MalVE and EtMI with and without RAFT agent

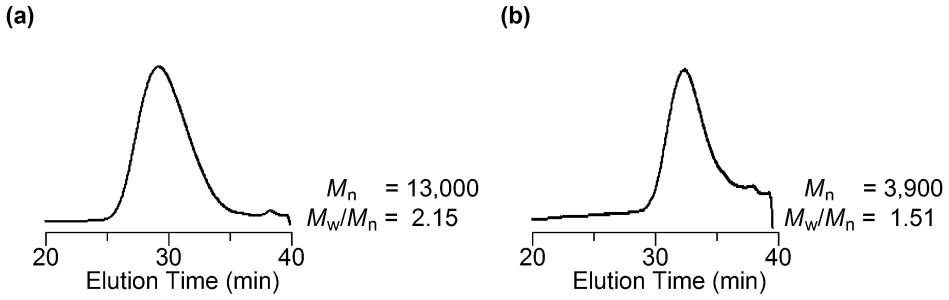
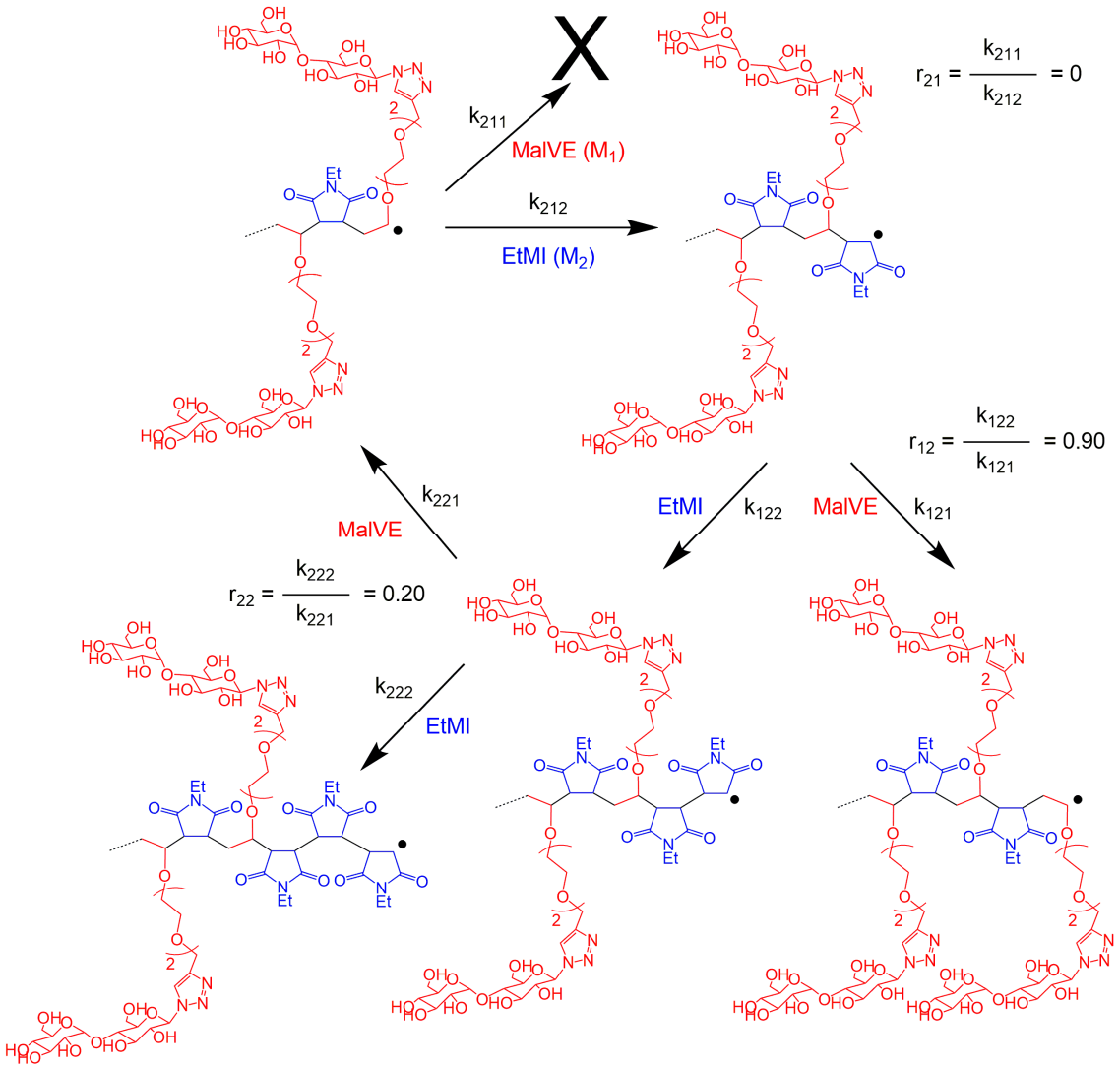


Fig. S2. SEC curves of poly(MalVE-*co*-EtMI) obtained in the radical copolymerization (a) without and (b) with RAFT agent using 0.2 mol L^{-1} $NaNO_3$ aq. as the eluent.



Scheme S1. Schematics of radical copolymerization of MalVE (M_1) and EtMI (M_2).

3. RAFT copolymerization of LacVE and EtMI.

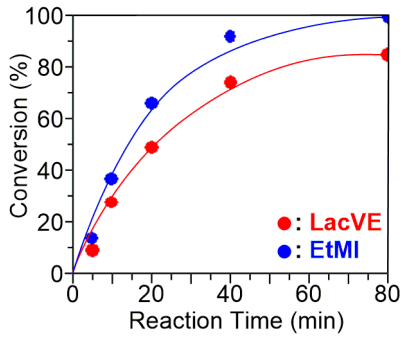


Fig. S3. Time-conversion curves for the RAFT copolymerization of LacVE and EtMI with BTSE.

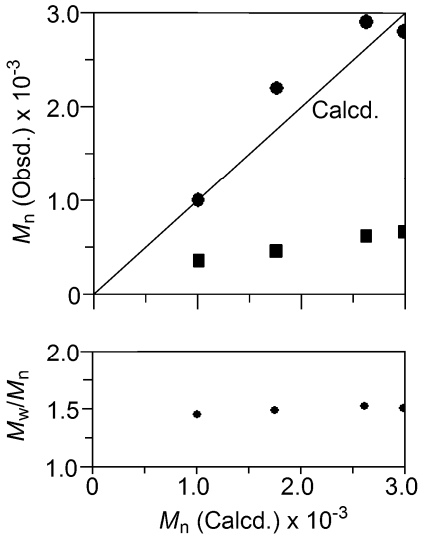


Fig. S4. Experimentally observed M_n and M_w/M_n value of poly(LacVE-*co*-EtMI) plotted against theoretical M_n of poly(LacVE-*co*-EtMI). Filled circles and squares correspond to the M_n data obtained by ^{1}H NMR and SEC, respectively.

4. RAFT copolymerization of LacVE and MalMI.

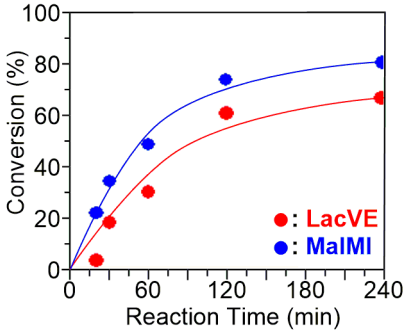


Fig. S5. Time-conversion curves for the RAFT copolymerization of LacVE and MalMI with BTSE.

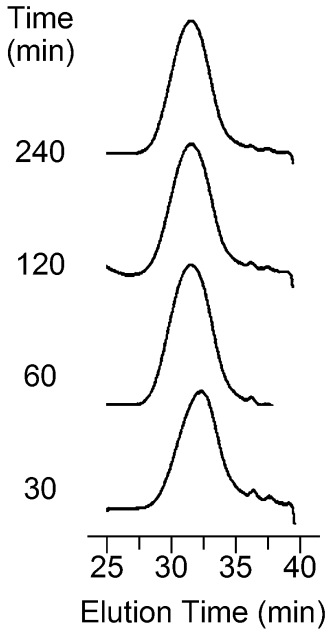


Fig. S6. SEC curves of poly(LacVE-*co*-MalMI) using 0.2 mol L^{-1} $NaNO_3$ aq. as the eluent.

5. Lectin binding assay

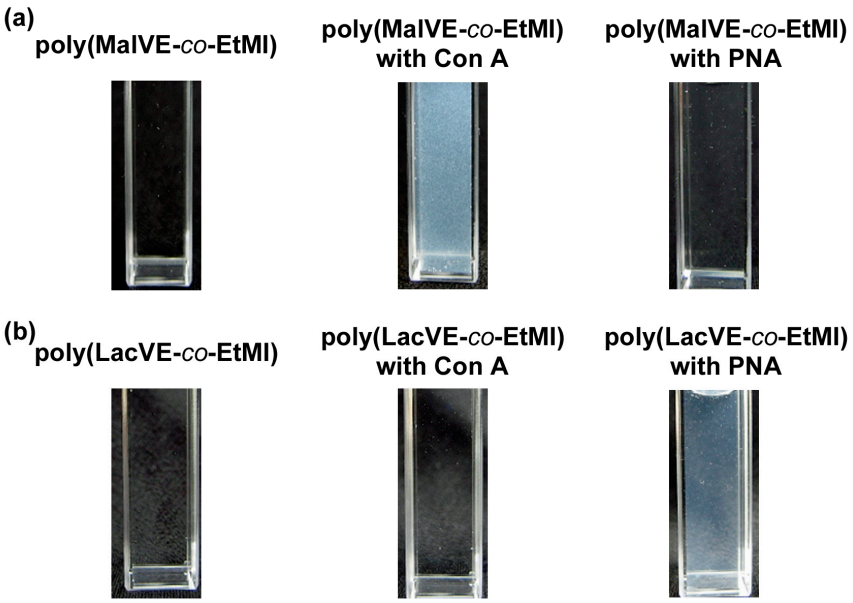


Fig. S7. Photography of (a) poly(MalVE-*co*-EtMI) and (b) poly(LacVE-*co*-EtMI) solution before and after the addition of FITC-unlabeled Con A or PNA.