Electronic Supplementary Information

The design of phenylboronic acid azoprobe/polyamidoamine dendrimer complexes as a supramolecular sensor for saccharide recognition in water

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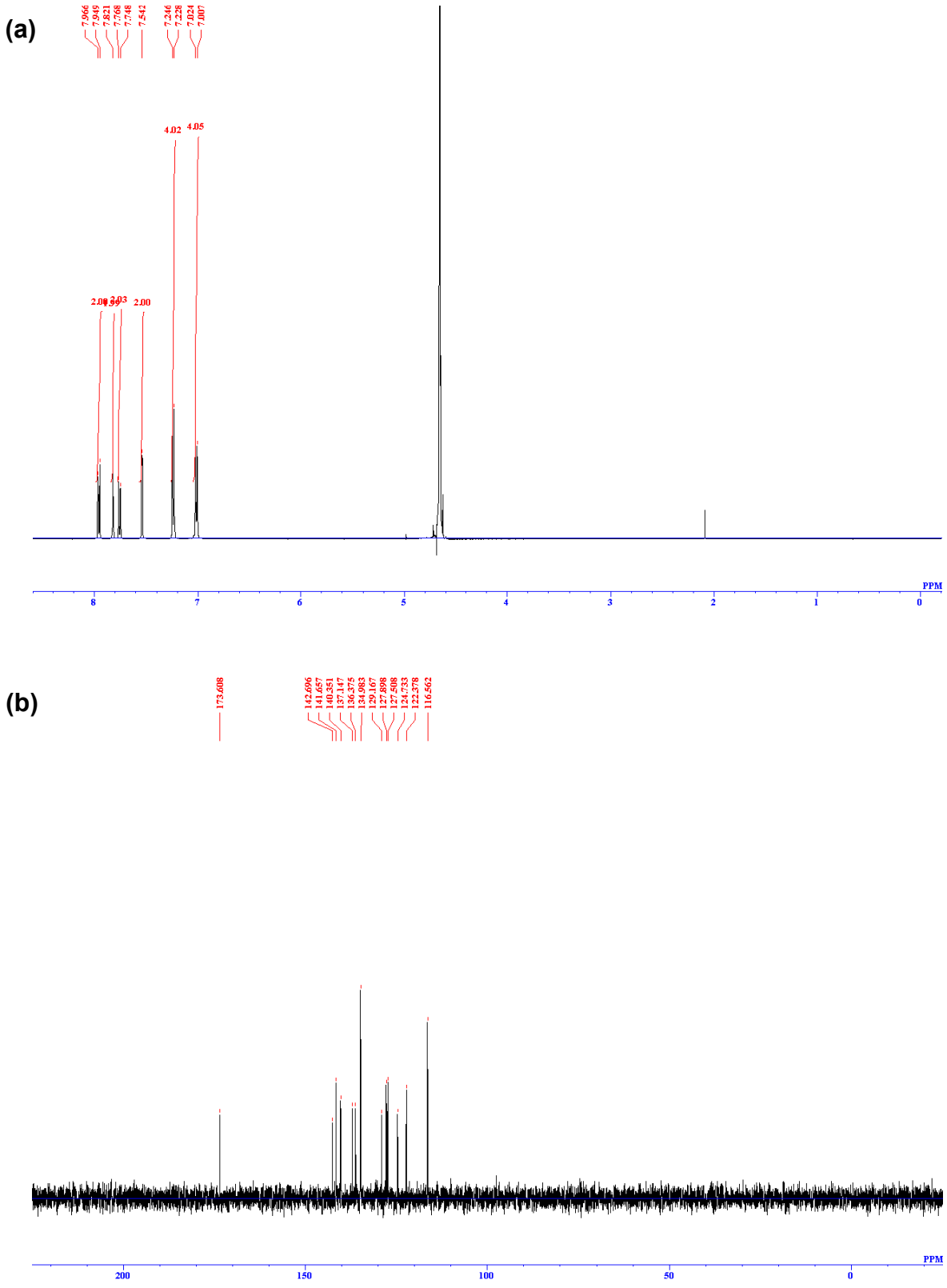

Figure S1. (a) ^{1}H NMR and (b) ^{13}C NMR spectra of 1-BAzo-NP.

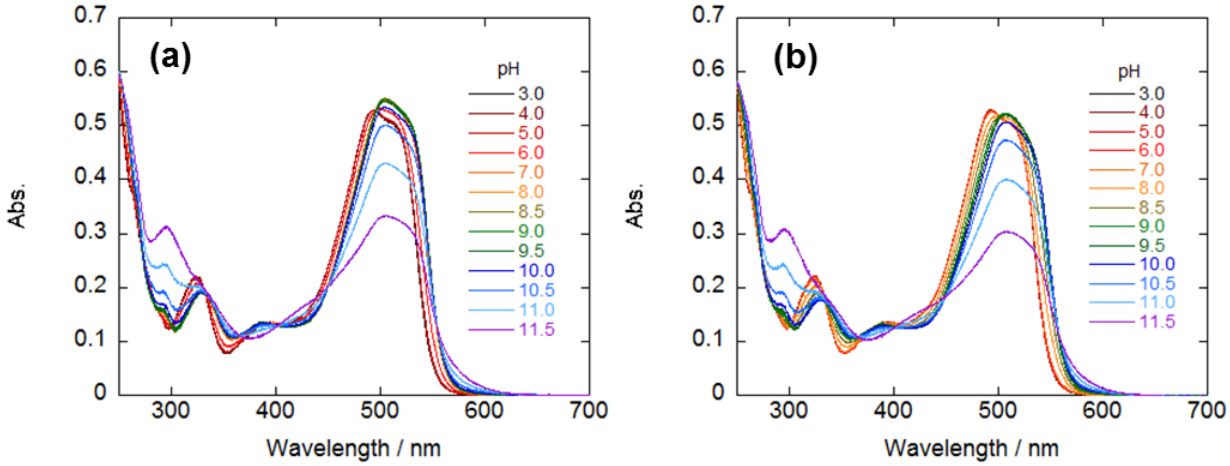

Figure S2. UV-Vis spectral changes of 1-BAzo-NP by changing pH. [1-BAzo-NP] = 0.02 mM, [fructose] = (a) 30 mM, (b) 0 mM, [H_3PO_4] = 1.0 mM.

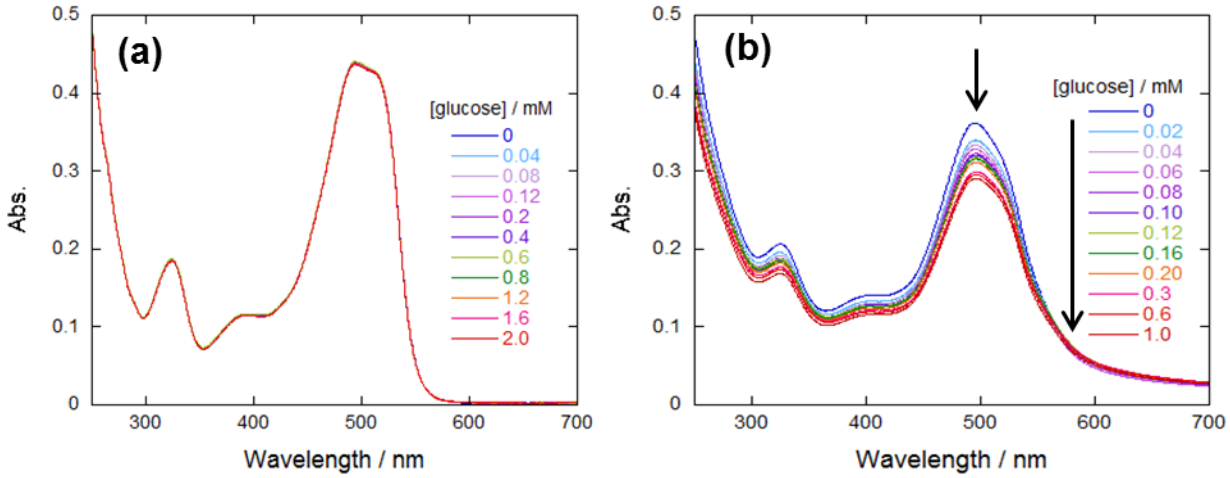

Figure S3. Spectral changes of (a) 1-BAzo-NP and (b) 1-BAzo-NP/PAMAM-G4 by the addition of glucose. [1-BAzo-NP] = 0.02 mM, [PAMAM-G4] = (a) 0 or (b) 0.62 μM (amine unit base: 0.04 mM), [saccharide] = 0-2 mM, [H_3PO_4] = 1 mM, pH 7.0.

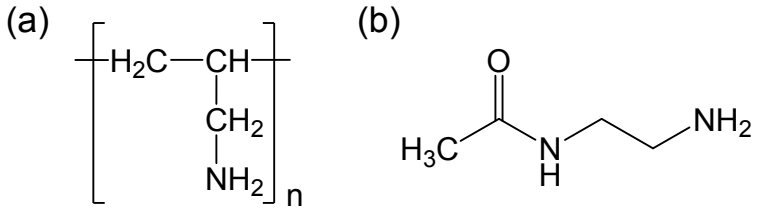

Figure S4. Chemical structure of (a) polyallylamine and (b) *N*-(2-aminoethyl)acetamide.

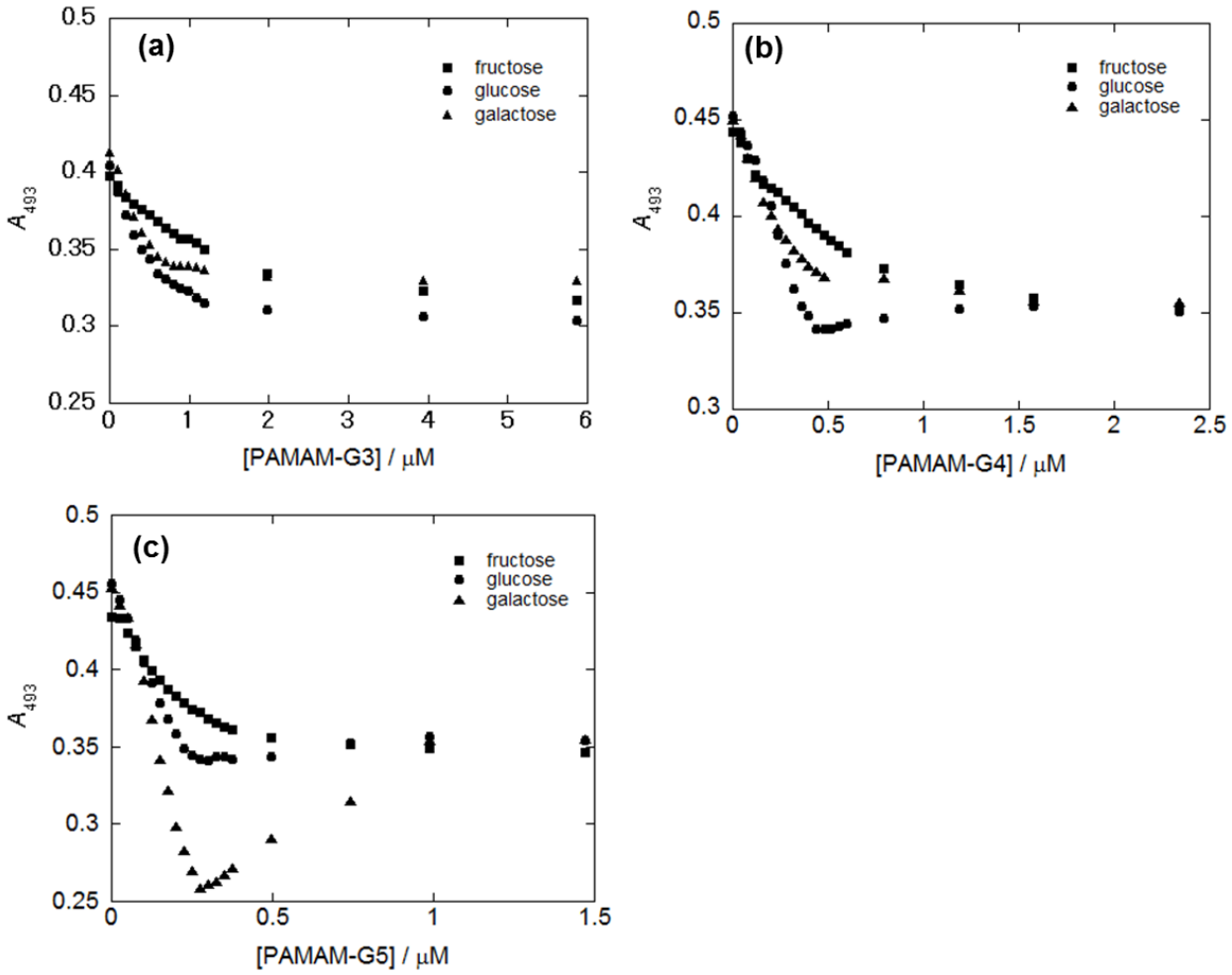

Figure S5. Changes of the absorption at 493 nm of 1-BAzo-NP with various saccharides (none, fructose, glucose, galactose) by the addition of (a) PAMAM-G3, (b) PAMAM-G4, and (c) PAMAM-G5. [1-BAzo-NP] = 0.02 mM, [saccharide] = 30 mM, [H_3PO_4] = 1.0 mM, pH 7.0, and (a) [PAMAM-G3] = 0-6 μM (amine unit base: 0-0.2 mM), (b) [PAMAM-G4] = 0-3 μM (amine unit base: 0-0.2 mM), (c) [PAMAM-G5] = 0-1.5 μM (amine unit base: 0-0.2 mM).