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Synthesis of Conjugation-ready Zwitterionic Oligosaccharides by Chemoselective Thioglycoside Activation

Supporting Information: Supporting Figures

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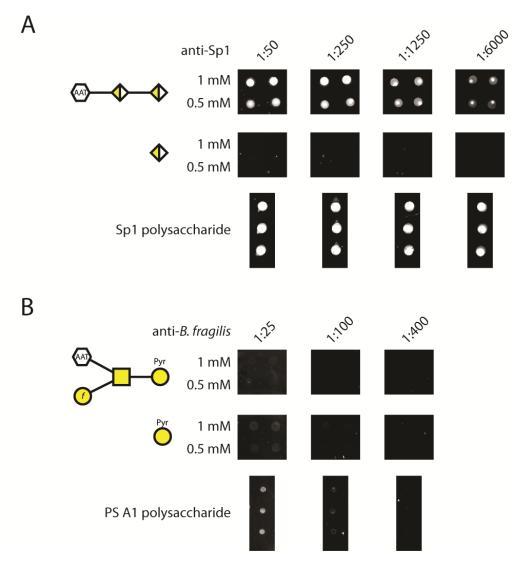
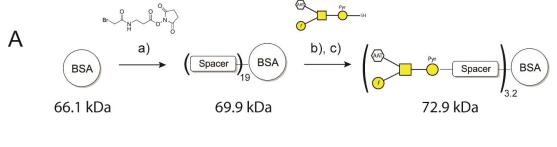
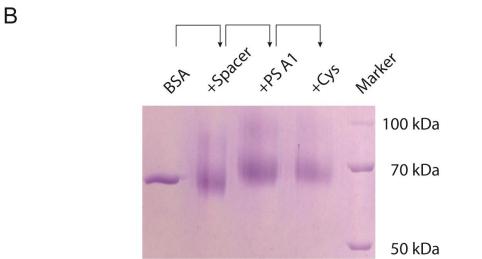
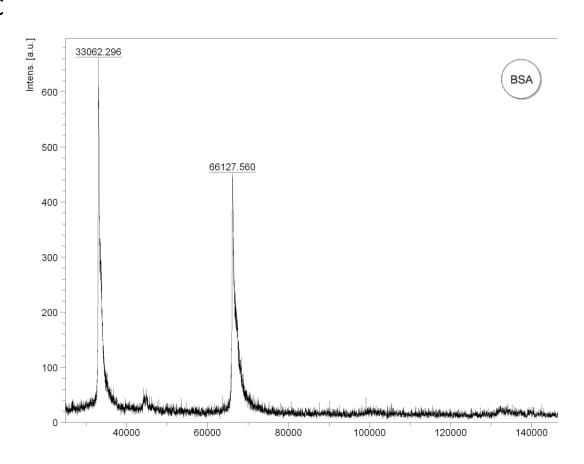


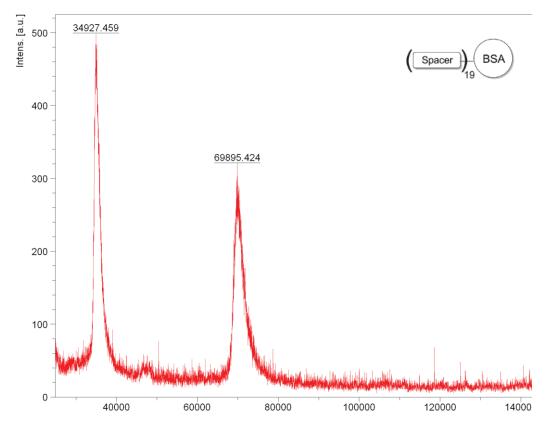
Figure SI-1. Binding of antisera to synthetic zwitterionic oligosaccharides and natural ZPSs. Oligosaccharides were immobilized in different concentrations on maleimide-functionalized microarray slides and incubated with increasing dilutions of antisera. Native ZPSs were spotted as positive controls at a concentration of 0.05 mg/mL. *A,* Incubation of synthetic and natural Sp1 structures with rabbit anti-Sp1 antiserum. *B,* Incubation of synthetic and natural PS A1 structures with rabbit anti-*B. fragilis* antiserum. Bound antibodies were detected by incubating with anti-rabbit IgG-FITC secondary antibody.

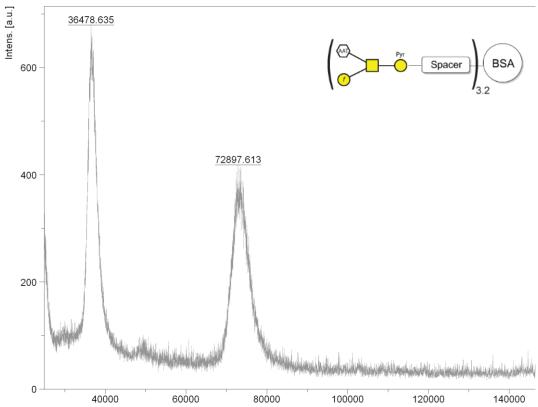












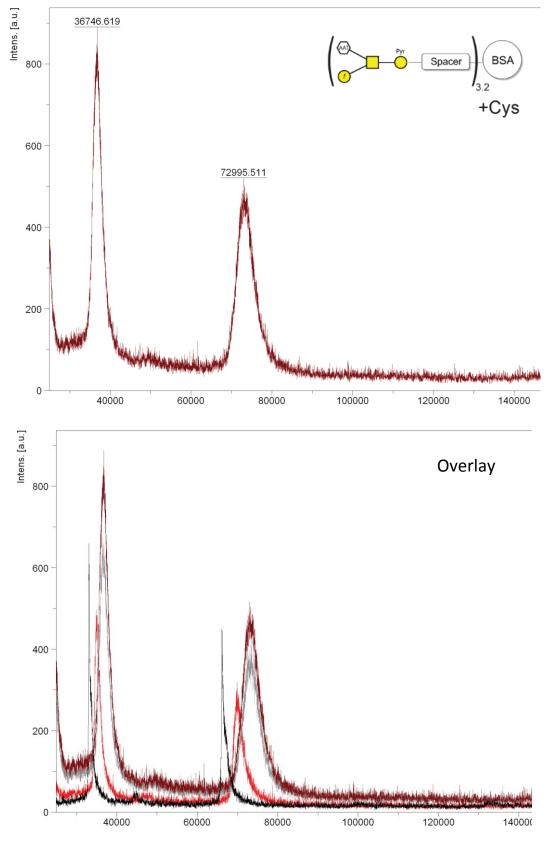


Figure SI-2. Preparation of a glycoconjugate of synthetic PS A1 repeating unit **2**. *A*, schematic representation of the conjugation procedure. a) SBAP, 0.1 M NaPi pH 7.4, r.t.; b) Disulfide **2**, TCEP, 0.1 M NaPi pH 7.4, r.t.; c) L-cysteine, 0.1 M NaPi pH 7.4, r.t. *B*, 10% SDS-PAGE analysis of glycoconjugation intermediates (Coomassie stain). Marker: PrecisionPlus Unstained Protein Ladder (BioRad, Munich, Germany). *C*, Analysis of glycoconjugation intermediates by MALDI-TOF-MS. NaPi = sodium phosphate buffer; SBAP = *N*-succinimidyl-3-(bromoacetamido)propionate; TCEP = tris(2-carboxyethyl)phosphine.