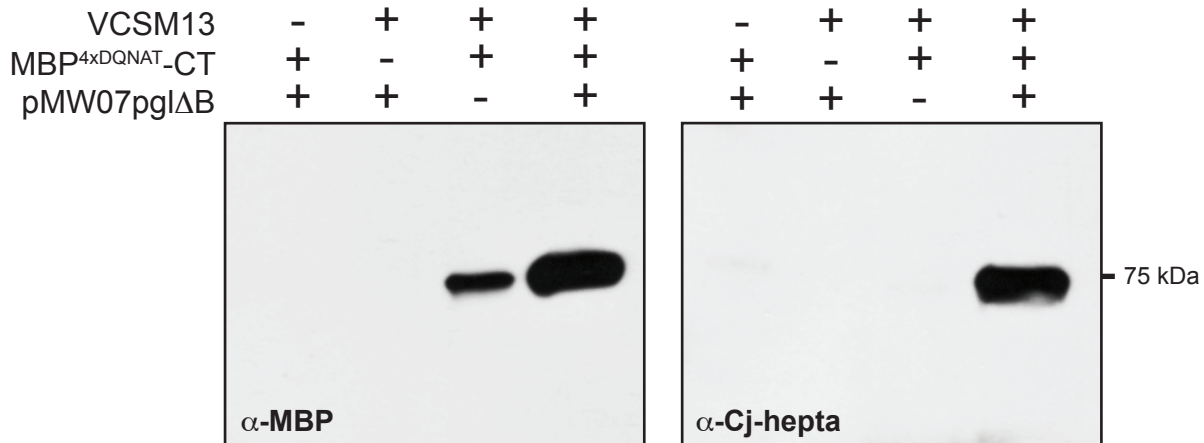
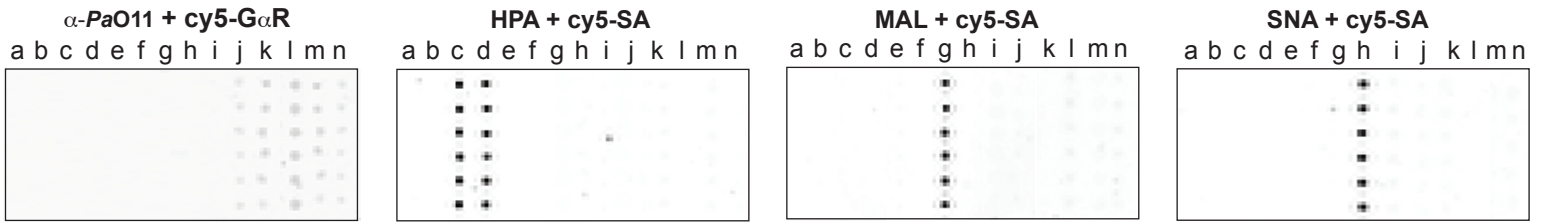


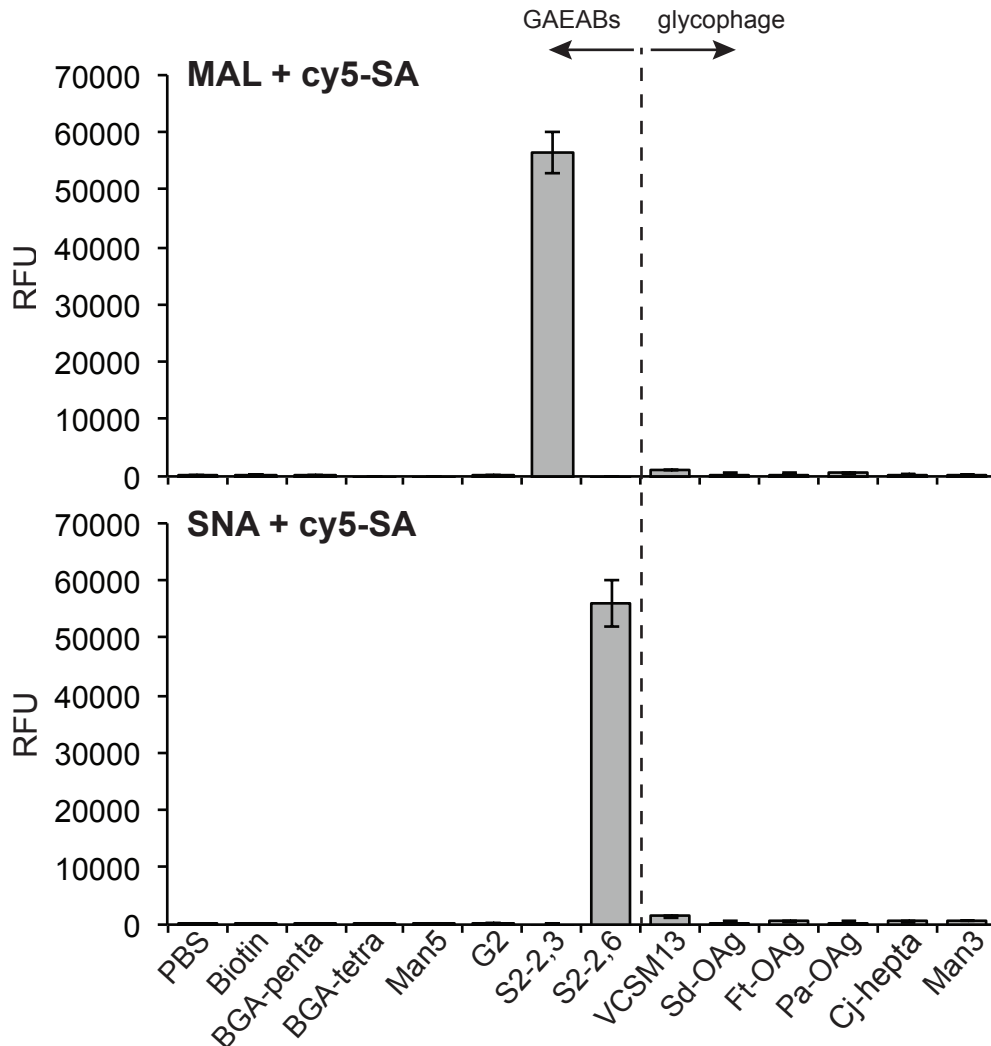
Supplementary Figure S1. Glycan structures used in array fabrication. Schematic of glycan structures, as conjugates to AEAB (glycan-AEABs or GAEABs), that were printed on microglass arrays as controls for array patterning and GBP binding. The structures are given in the symbol nomenclature adopted by the Consortium for Functional Glycomics.



Supplementary Figure S2. Optimized production of phages displaying *C. jejuni* *N*-glycan. Western blot analysis of phage preparations (containing 6×10^{10} glycophage particles) derived from *E. coli* TG1 $\Delta waaL$ cells co-transformed with phagemid pBAD-MBP^{4xDQNAT}-CT::PgIB and pMW07pglΔB and grown under optimal growth and protein expression conditions. Phage preparation involved addition (+) or omission (-) of VCSM13 helper phage. Additional controls involved omitting either the phagemid or the glycan biosynthesis pathway. Blots were probed with anti-MBP or hR6 serum (anti-Cj-hepta) as indicated.



Supplementary Figure S3. Representative glycan microarray images. Glycan binding by serum antibodies against Pa-OAg was detected with Cy5-labeled goat anti-rabbit antibodies (Cy5-G α R) and by lectins HPA, MAL and SNA was detected with Cy5-SA. Arrays were printed with the following: (a) PBS, (b) biotin, (c) blood group A pentasaccharide (BGA-penta), (d) BGA tetrasaccharide (BGA-tetra), (e) Man₅GlcNAc₂ (Man5), (f) biantennary non-sialylated G2 glycan (G2), (g) biantennary disialylated glycan (α 2,3 linkage; S2-2,3), (h) biantennary disialylated glycan (α 2,6 linkage; S2-2,6), (i) helper phage control (VCSM13), and phages displaying (j) Sd-OAg, (k) Ft-OAg, (l) Pa-OAg, (m) Cj-hepta and (n) Man3. Each glycan or glycophage feature was replica printed six times (n=6) in the vertical direction.



Supplementary Figure S4. Detection of phage-displayed N-glycans using glycan microarray. Glycan binding by lectins MAL and SNA was detected with Cy5-SA. Arrays were printed with the following: PBS, biotin, blood group A pentasaccharide (BGA-penta), BGA tetrasaccharide (BGA-tetra), Man₅GlcNAc₂ (Man5), biantennary non-sialylated G2 glycan (G2), biantennary disialylated glycan (α 2,3 linkage; S2-2,3), biantennary disialylated glycan (α 2,6 linkage; S2-2,6), helper phage control (VCSM13), and phages displaying Sd-OAg, Ft-OAg, Pa-OAg, Cj-hepta and Man3. Data reported as the average (n=6) RFU and error bars represent the standard deviation of the mean.