

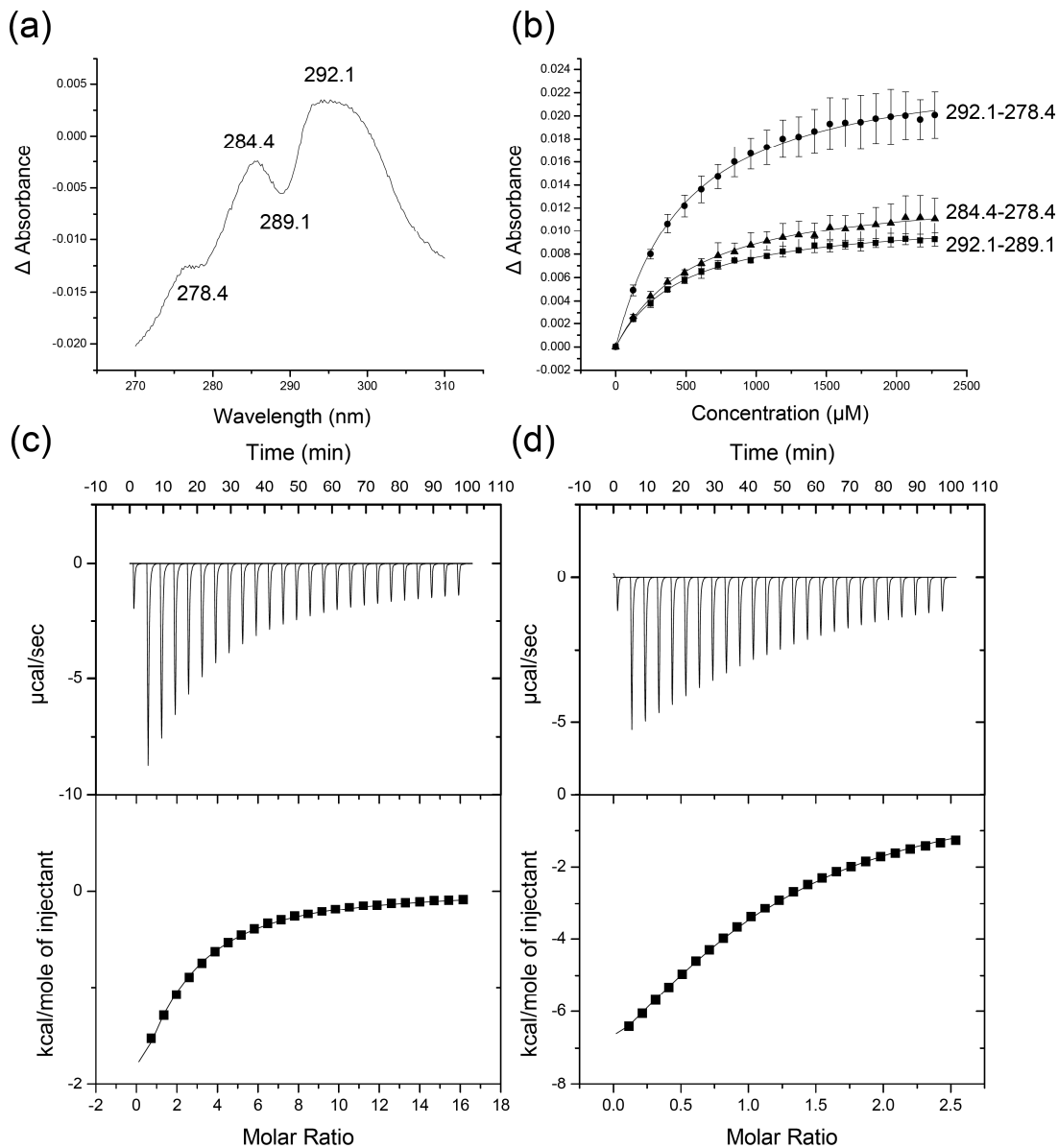
**Supplementary material for:**

**N-acetylglucosamine recognition by a family 32 carbohydrate-binding module from *Clostridium perfringens* NagH.**

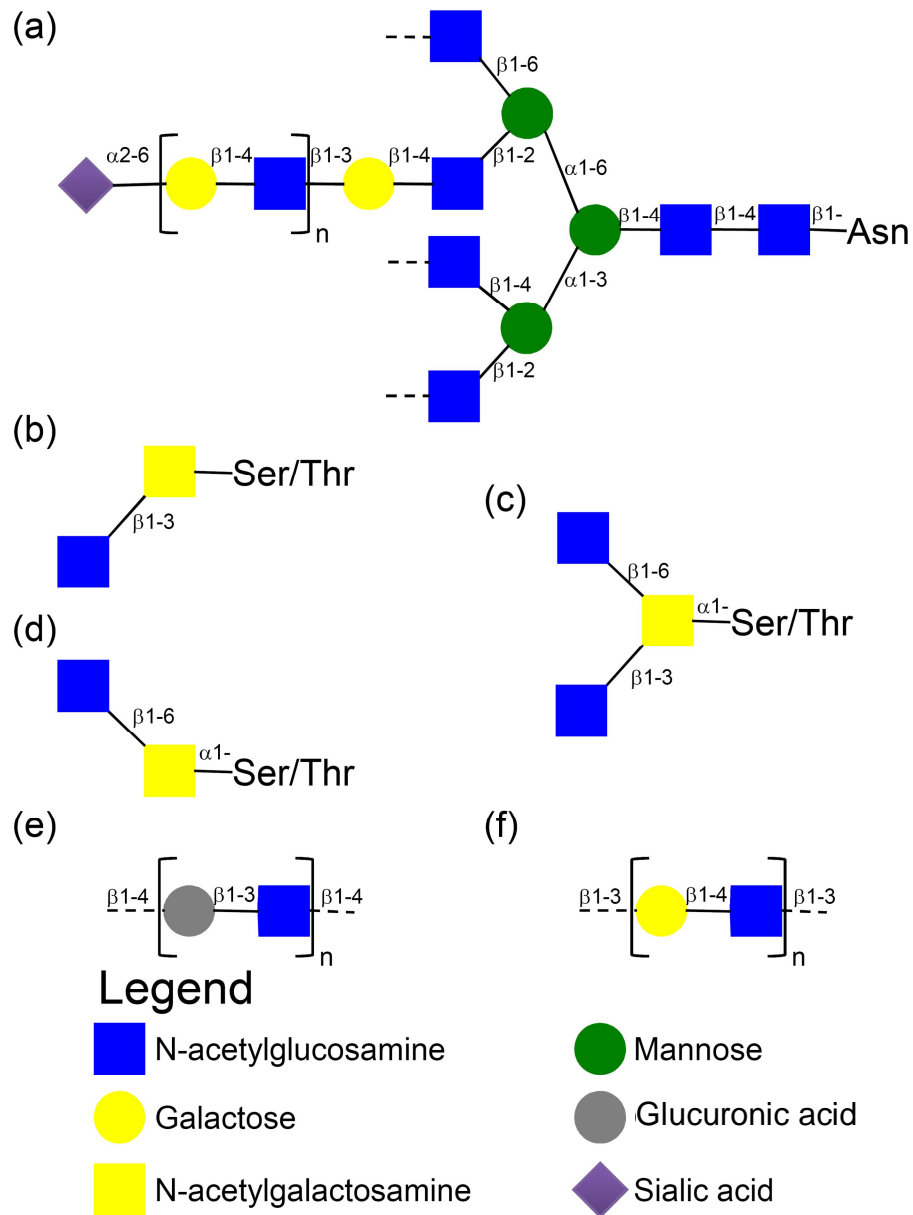
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Supplementary Figure S1. NagHCBM32-2 binding studies. (a) UV difference spectrum upon NagHCBM32-2 binding to excess glcNAc. Wavelengths of peaks and troughs are labeled. (b) Representative UV difference binding isotherm generated by the titration of glcNAc (25mM) into NagHCBM32-2 (33.5  $\mu$ M). Peak-trough wavelength pairs used to generate each curve from a single data set are shown. Representative isothermal titration calorimetry isotherms for (c) glcNAc (17.51 mM) titrated into CpCBM32-2 (200.28  $\mu$ M) and (d) glcNAc $\beta$ 1-3galNAc (2.75 mM) titrated into CpCBM32-2 (200.28  $\mu$ M). The top panels in (c) and (d) show the raw calorimetry data and the bottom panels the heat of dilution corrected integrated heats. The solid lines in panels (b), (c), and (d) show the results of non-linear curve fitting with a one site binding model.



Supplementary Figure S2. Schematics of common N-acetylglucosamine containing N-linked, O-linked, and glycosaminoglycans. (a) Hypothetical N-linked glycan used to represent possible glcNAc linkages in such a glycan.  $\beta$ -1,4-linked glcNAc residues can also be found. One arm of the glycan is shown with a representative sialylated polylactosamine arm. Dashed lines represent possible linkages to other sugars, usually galactose. (b) Core 3 O-linked glycan. (c) Core 4 O-linked glycan. (d) Core 6 O-linked glycan. (e) Repeating unit of hyaluronic acid. (f) Repeating unit of keratan. The sugar subunits of keratan are often 6-sulfated