

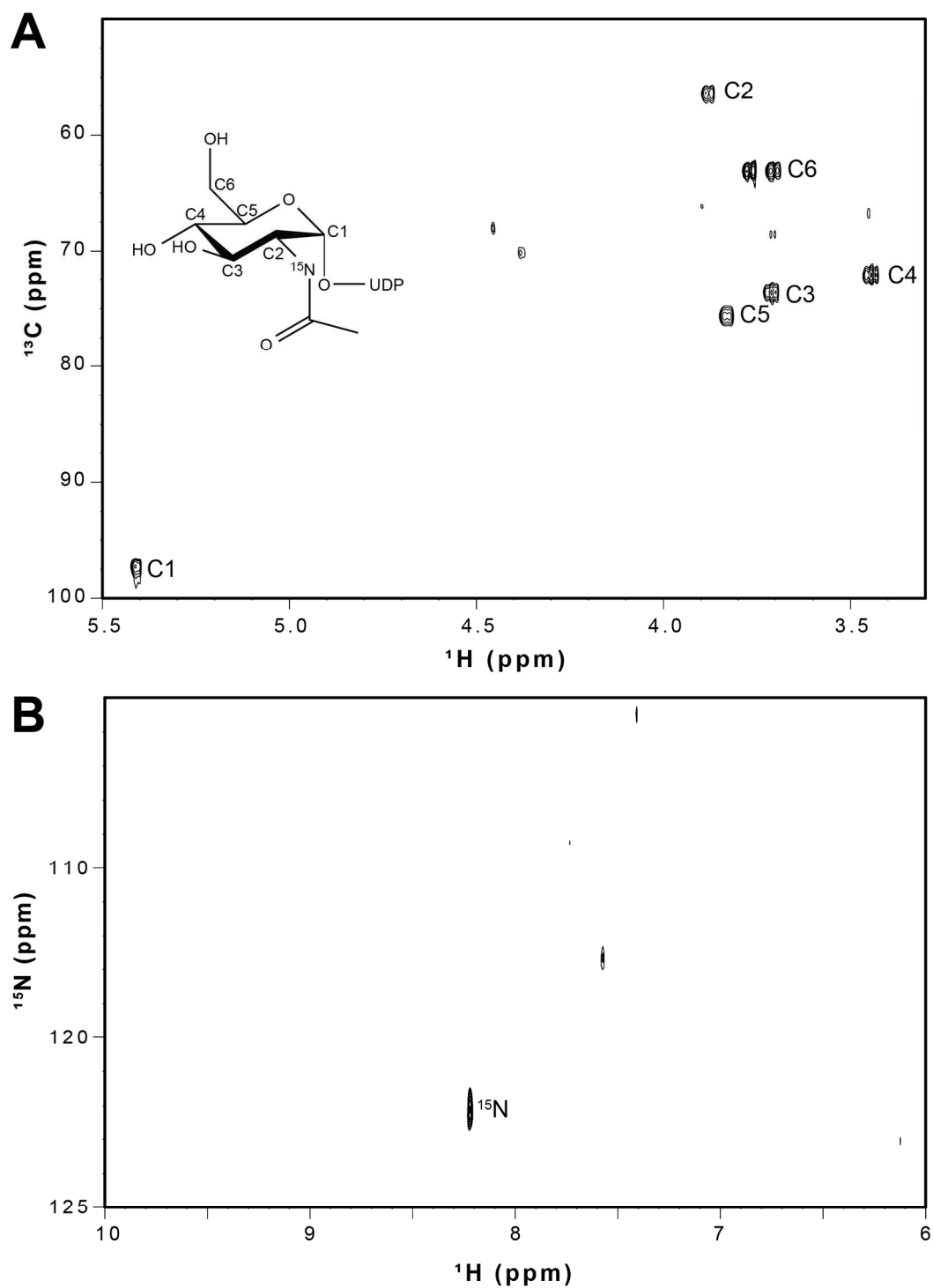
Supplement for:

Intramolecular N-glycan/polypeptide interactions
observed at multiple N-glycan remodeling steps through
[¹³C, ¹⁵N]-*N*-acetylglucosamine labeling of
immunoglobulin G1

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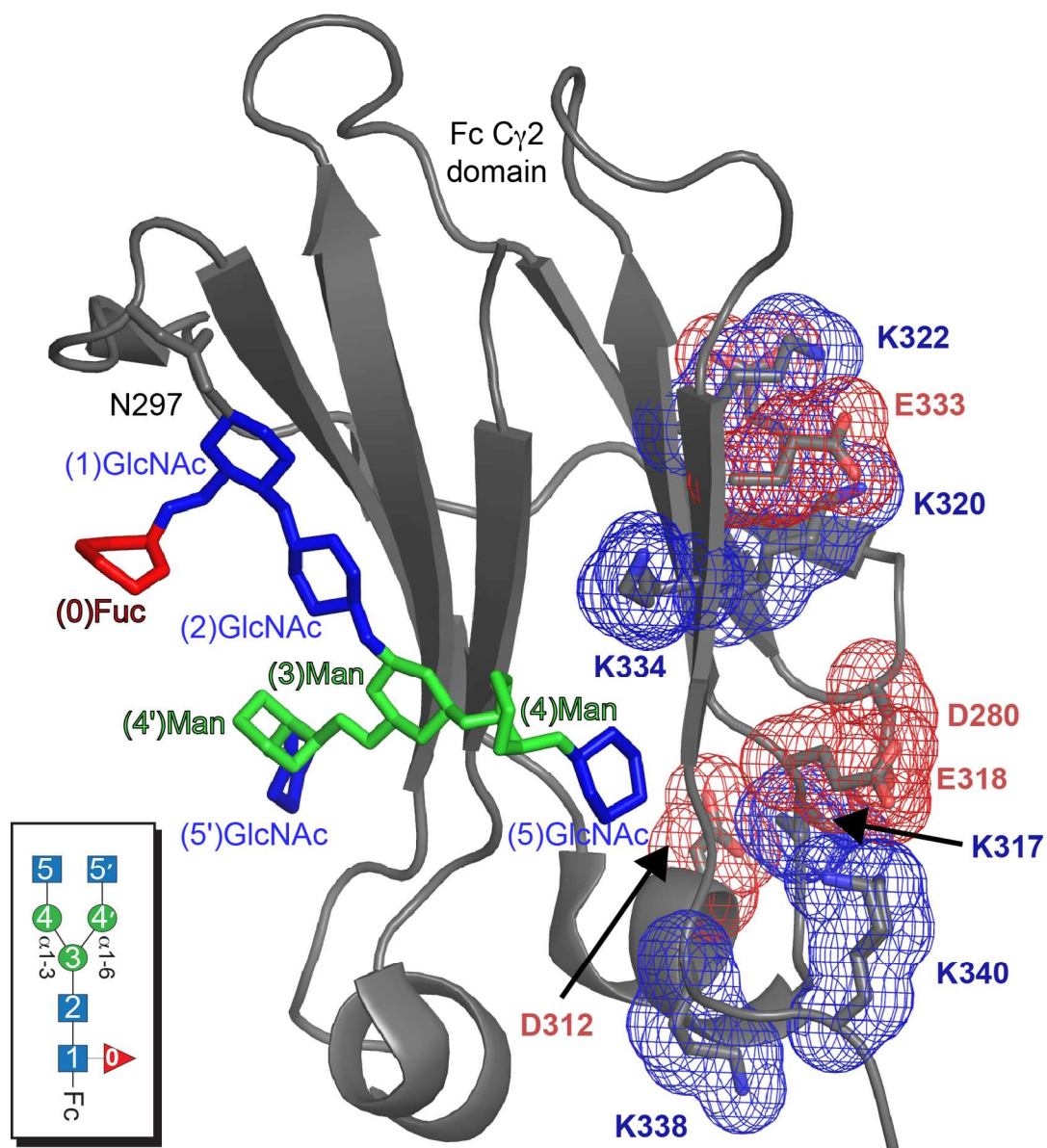


Figure S2. Basic lysine residues are poised to influence the resonance frequency of atoms of the (5)GlcNAc residue. K334 is ~ 8 Å from the (5)GlcNAc and despite the appearance in the figure, D312 is ~ 25 Å away. Carbohydrate residues are colored according to Fig 1. This figure was created using pdb 4ku1¹ and PyMol (Schrödinger).

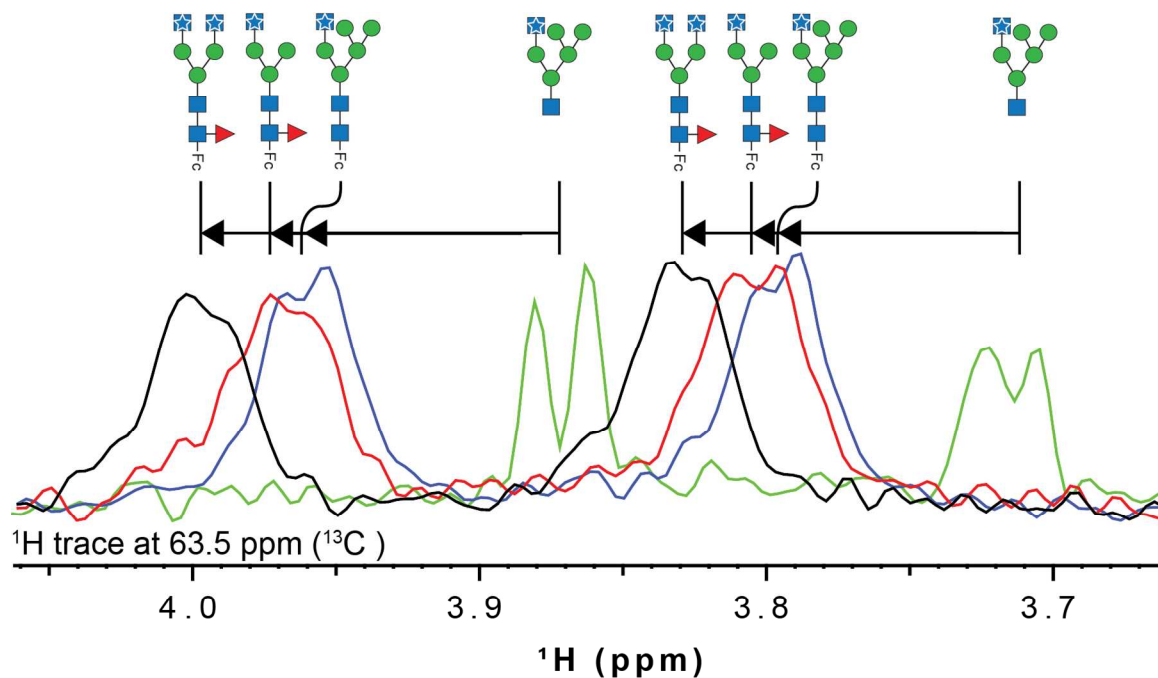


Figure S3. Representative lineshapes and peak positions from (5)-GlcNAc H6 peaks extracted from the same data shown in Figures 5&6, except these spectra were processed without applying a line-broadening window function in the ^1H dimension. Spectra are colored according to the convention adopted in Figures 5-7. Note the clearly resolved $^2J_{\text{HH}}$ couplings in the EndoF1 treated spectra (green lines).

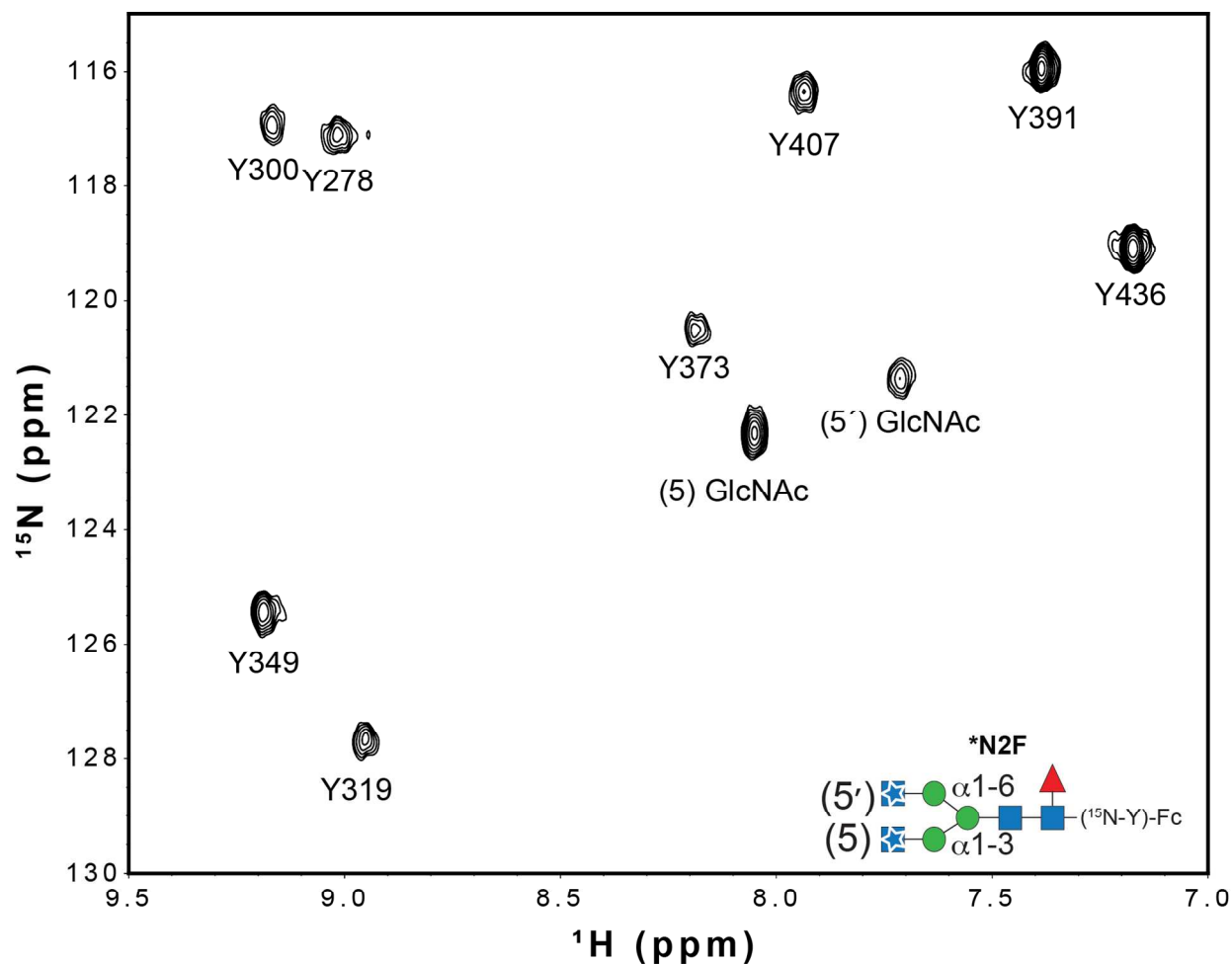


Figure S4. ^1H - ^{15}N -HSQC-TROSY showing selective amino acid and carbohydrate amide resonances. (^{15}N -Y)-IgG1 Fc was remodeled to the *N2F with [^{13}C , ^{15}N]-GlcNAc. Resonances were assigned based on ² and ³.

Supplemental References

- (1) Frank, M.; Walker, R. C.; Lanzilotta, W. N.; Prestegard, J. H.; Barb, A. W. *Journal of molecular biology* **2014**, 426, 1799.
- (2) Matsumiya, S.; Yamaguchi, Y.; Saito, J.; Nagano, M.; Sasakawa, H.; Otaki, S.; Satoh, M.; Shitara, K.; Kato, K. *Journal of molecular biology* **2007**, 368, 767.
- (3) Yamaguchi, Y.; Walchli, M.; Nagano, M.; Kato, K. *Carbohydrate research* **2009**, 344, 535.