Electronic Supplementary Material (ESI) for Analyst.

Supporting Information

Identification of N-glycan positional isomers by combining IMS and vibrational fingerprinting of structurally determinant CID fragments

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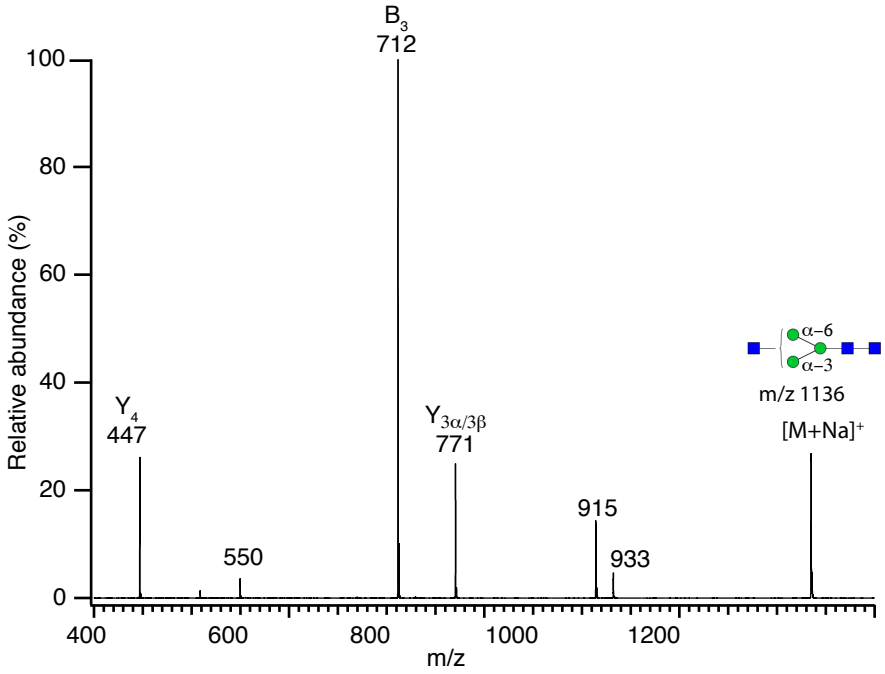

Figure S1. Mass spectrum of G0-N and its CID fragments.

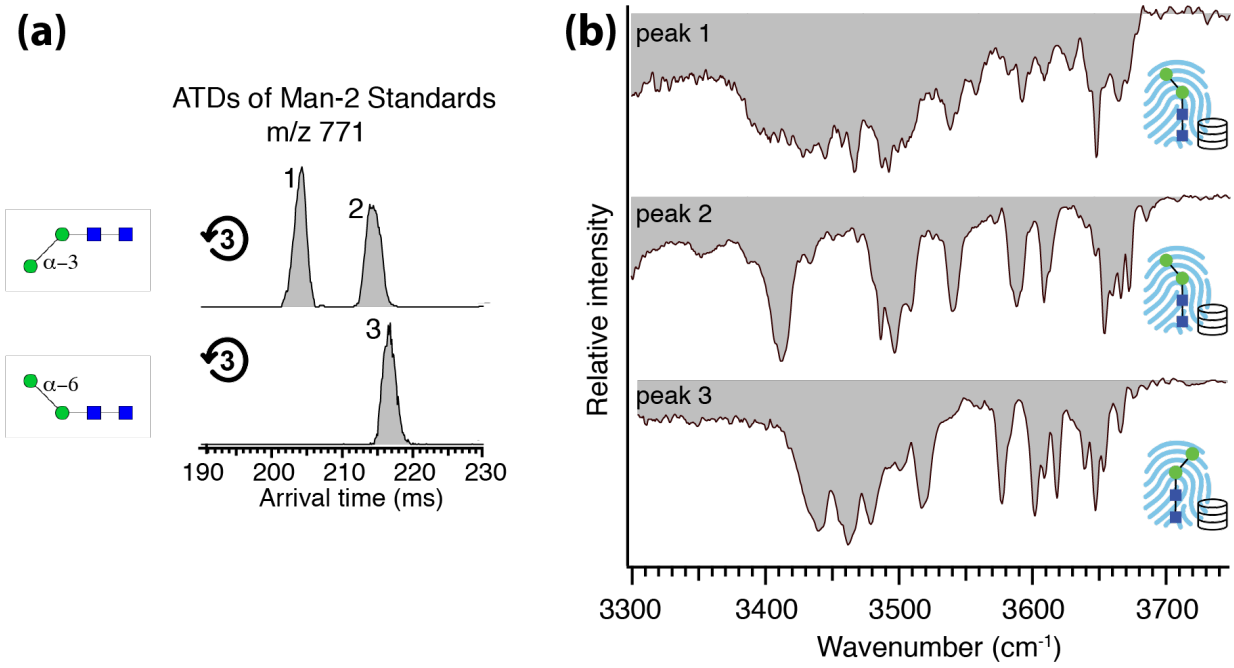

Figure S2. (a) ATD of Man-2(3) (top) and Man-2(6) (bottom) standards after three separation cycles (30 m pathlength). (b) Cryogenic IR fingerprint spectra of each peak in the ATD of Man-2 standards.

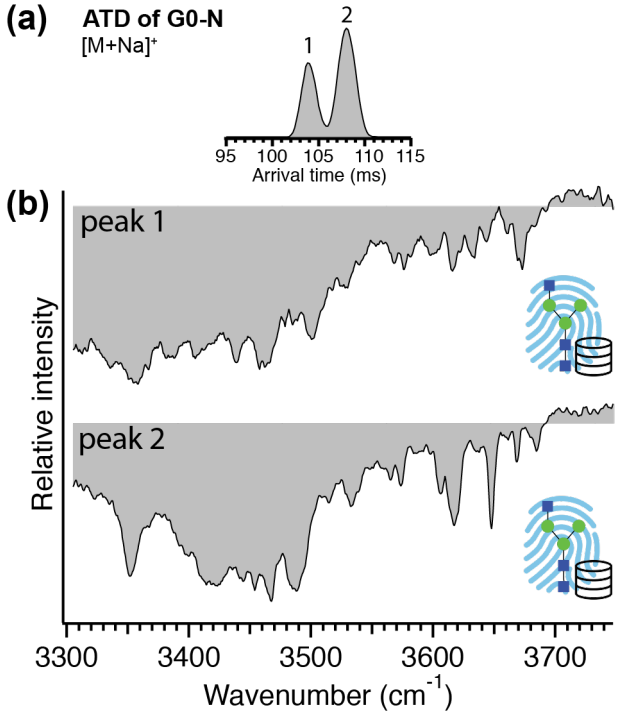

Figure S3. (a) Arrival time distribution and (b) IR fingerprint spectra of G0-N(3) isomers.

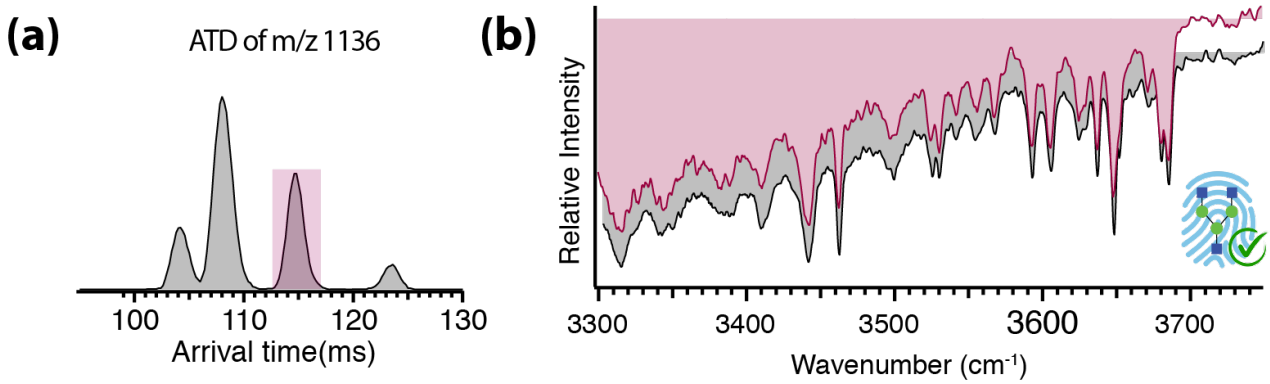

Figure S4. (a) ATD of an isomeric glycan mixture with m/z 1136 after one cycle. (b) Cryogenic IR spectra of third peak in the ATD (maroon), compared to that of a glycan standard (see inset).

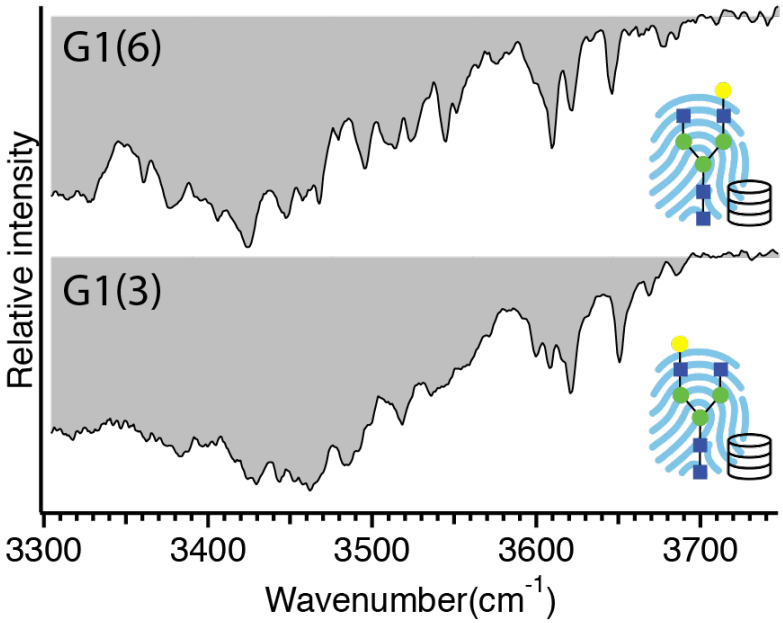

Figure S5. IR fingerprint spectra of the G1(3) and G1(6) positional isomers.

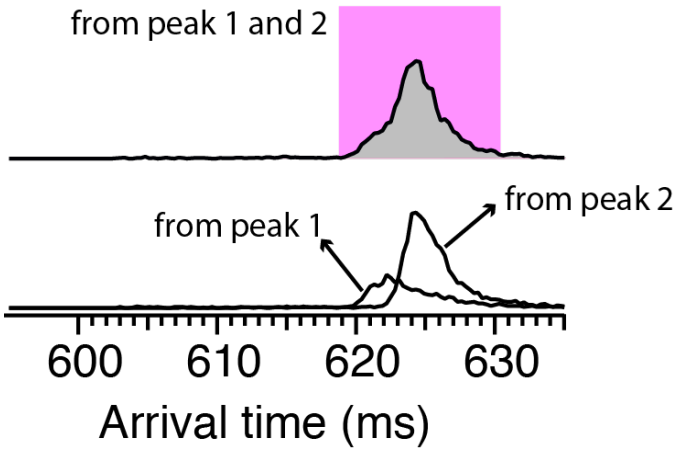

Figure S6. ATDs of m/z 1501 fragments obtained when first two peaks in the ATD of G1F were subjected to CID separately.

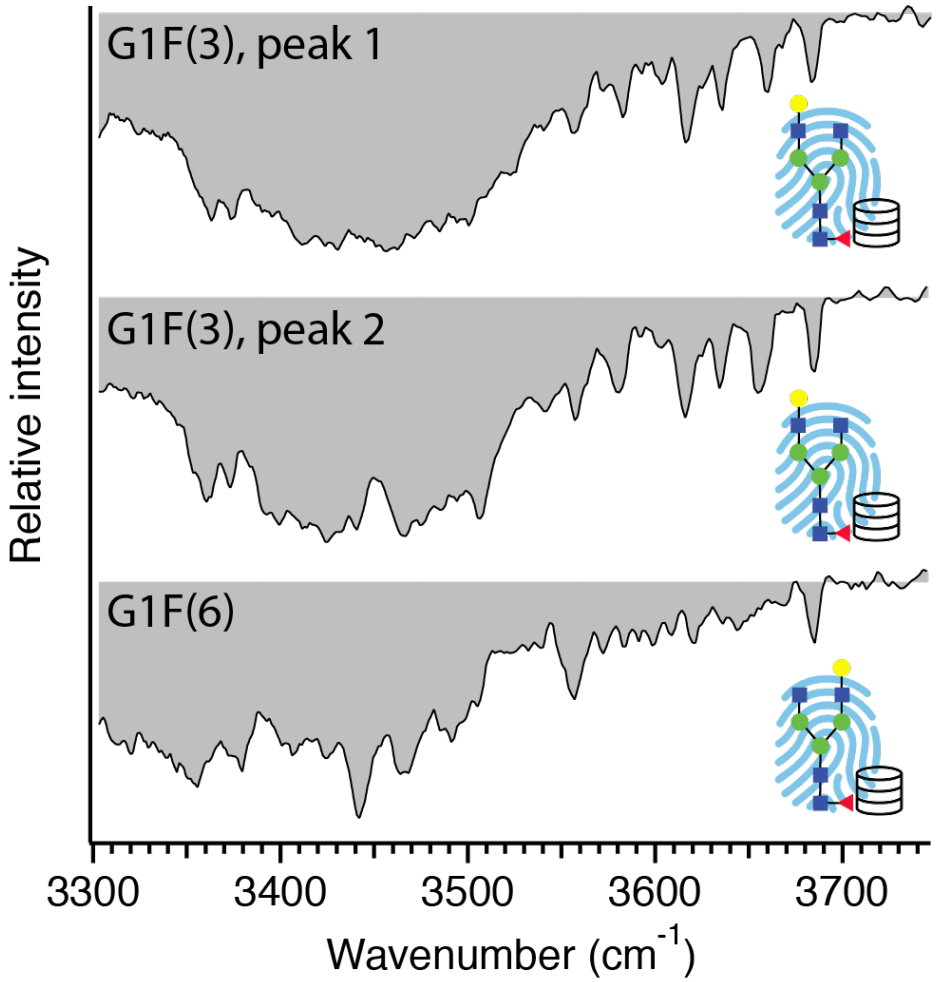

Figure S7. IR fingerprint spectra of the G1F(3) and G1F(6) positional isomers.