Supporting Information Figures

The N-Glycome of Human Plasma

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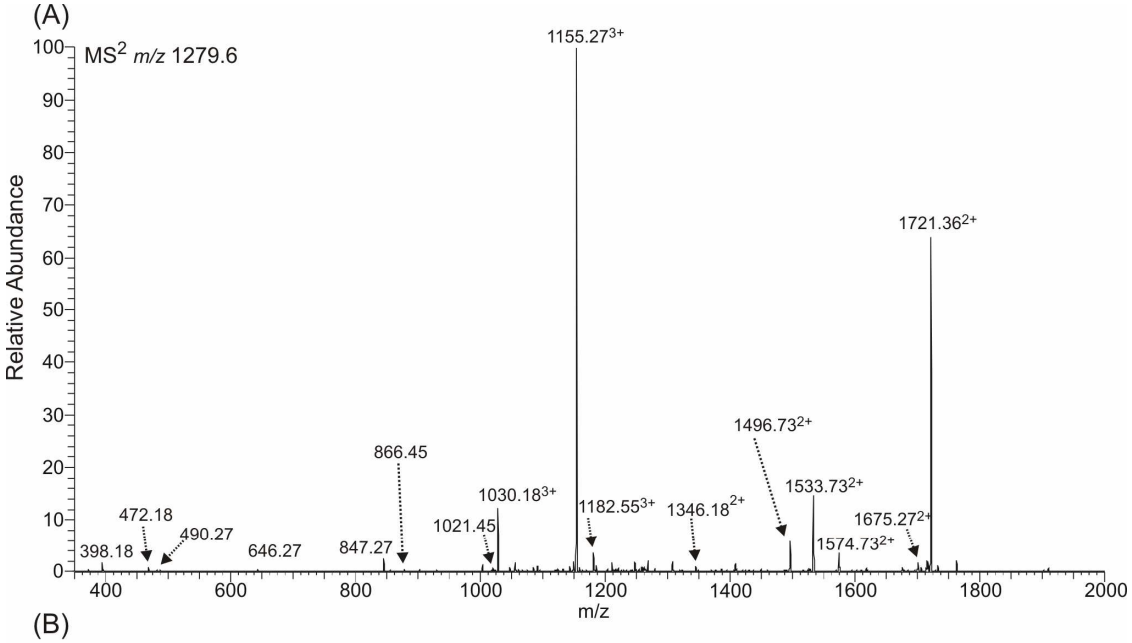
Figure S1. (A) MS^2 positive ion ESI-ion trap mass spectrum of *m/z* 1279.6 (H6N5F1A3). Peaks labeled in the spectrum are not specific to any 1 isomer. Unlabelled peaks which are isomer specific are detailed in (B).

(A)



(B)

Putative Structures	H6N5A3F1	
(a) (b) (c) (d)		
Loss ★	*m/z* 1721. 36, 1155.27	a, b, c, d
Loss ◆■	*m/z* 1675.27	a, b
Loss ★, ■	*m/z* 1574.73	c, d
Loss 2 ★	*m/z* 1533.73, 1030.18	a, b, c, d
Loss ★◆■	*m/z* 1496.73	a, b, c, d
Loss 3 ★	*m/z* 1346.18	a, b, c, d
Loss ■	*m/z* 1182.55	c, d
★◆■◆	*m/z* 1021.45	c, d
◆■◆■ or ◆■◆■	*m/z* 980.55	c, d
★◆■	*m/z* 847.27	a, b, c, d
◆■	*m/z* 646.27	c, d
◆■	*m/z* 490.27	a, b
◆■ or similar	*m/z* 472.18	a, b, c, d
★	*m/z* 398.18	a, b, c, d

Figure S2. MS^2 positive ion ESI-ion trap mass spectrum of *m/z* 1502.8 with putative structures. Dotted lines from sialic acid signifies that linkage could be to the 3- or 6-position.

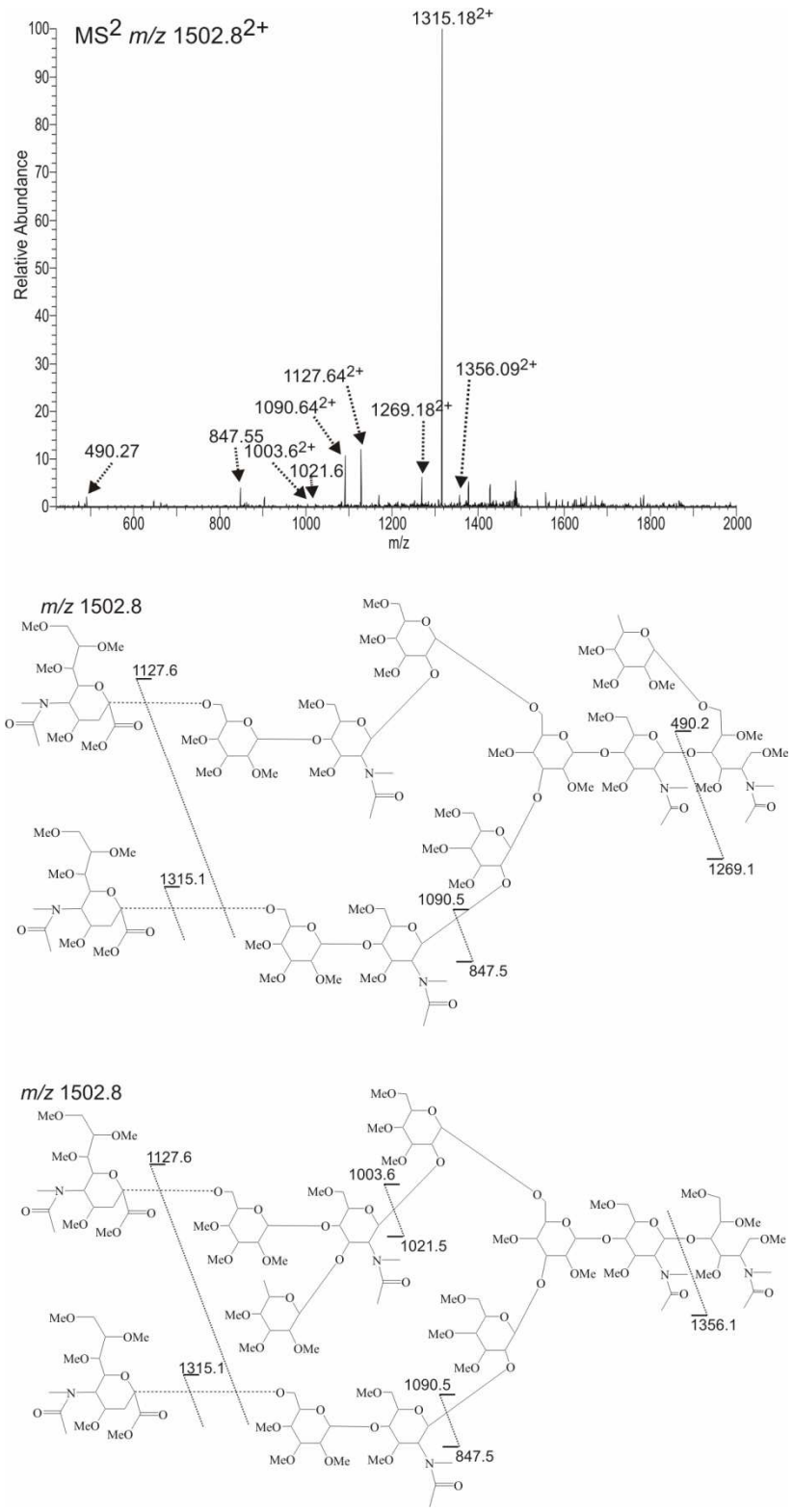
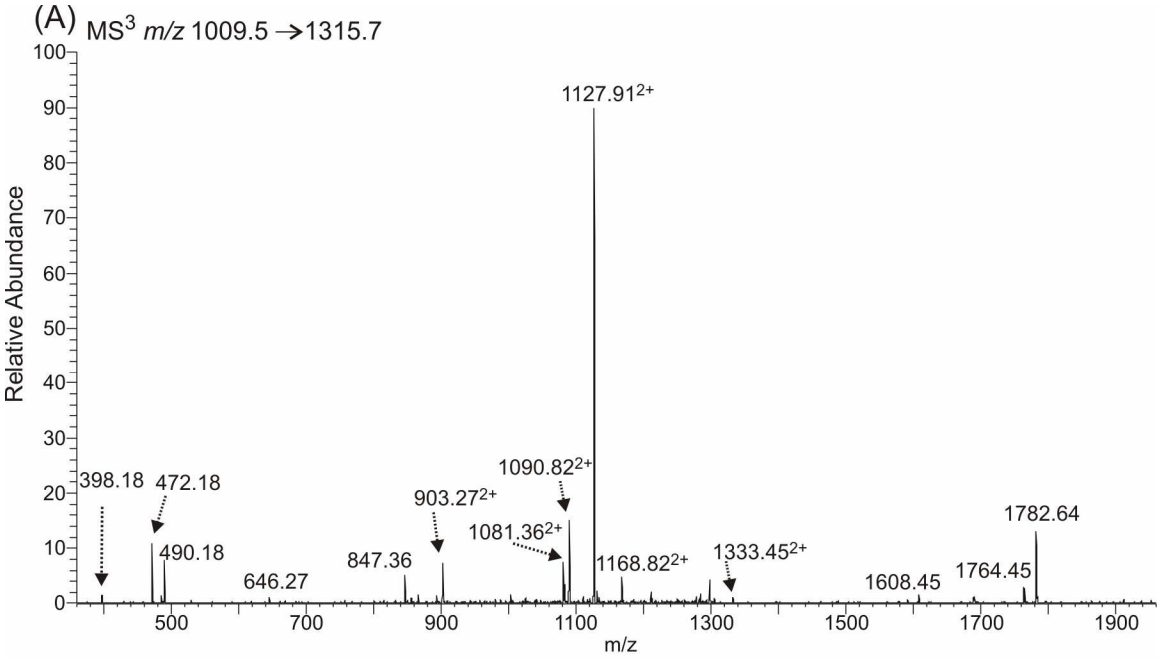


Figure S3. (A) MS^3 positive ion ESI-ion trap mass spectrum of *m/z* 1009.5 → 1315.73. Peaks labeled in the spectrum are possible in both isomers. (B) Detailed isomer characterization.



(B)

Putative Structures	H5N4A2F1
(a)	(b)

MS^n pathways	Isomer
1009.5→1315.7 (loss★) → 490.7 (-◇■)	a
1009.5→1315.7 (loss★)→1081.36 (loss★ ,-◇■)	a
1009.5→1315.7 (loss★)→1764.45 (loss★ ,-◇■)	a
1009.5→1315.7(loss★)→1333.45(loss★◆■,-◆■)	a
1009.5→1315.7 (loss★)→646.27 (-◆■◇)	b
1009.5→1315.7 (loss★)→1168.82 (loss -■)	b
1009.5→1315.7 (loss★)→1608.45 (loss★◆■◇)	b
1009.5→1315.7 (loss★)→1127.91 (loss ★)	a, b
1009.5→1315.7 (loss★)→1090.82 (loss-◆■)	a, b
1009.5→1315.7 (loss★)→903.27 (loss ★◆■)	a, b
1009.5→1315.7 (loss★)→1782.64 (loss★◆■)	a, b
1009.5→1315.7 (loss★) → 847.36 (★◆■)	a, b
1009.5→1315.7 (loss★) → 472.18 (-◆■or other)	a, b
1009.5→1315.7 (loss★) → 398.18 (★)	a, b

Figure S4. MS^3 positive ion ESI-ion trap mass spectrum of *m/z* 1009.5 → 1040.

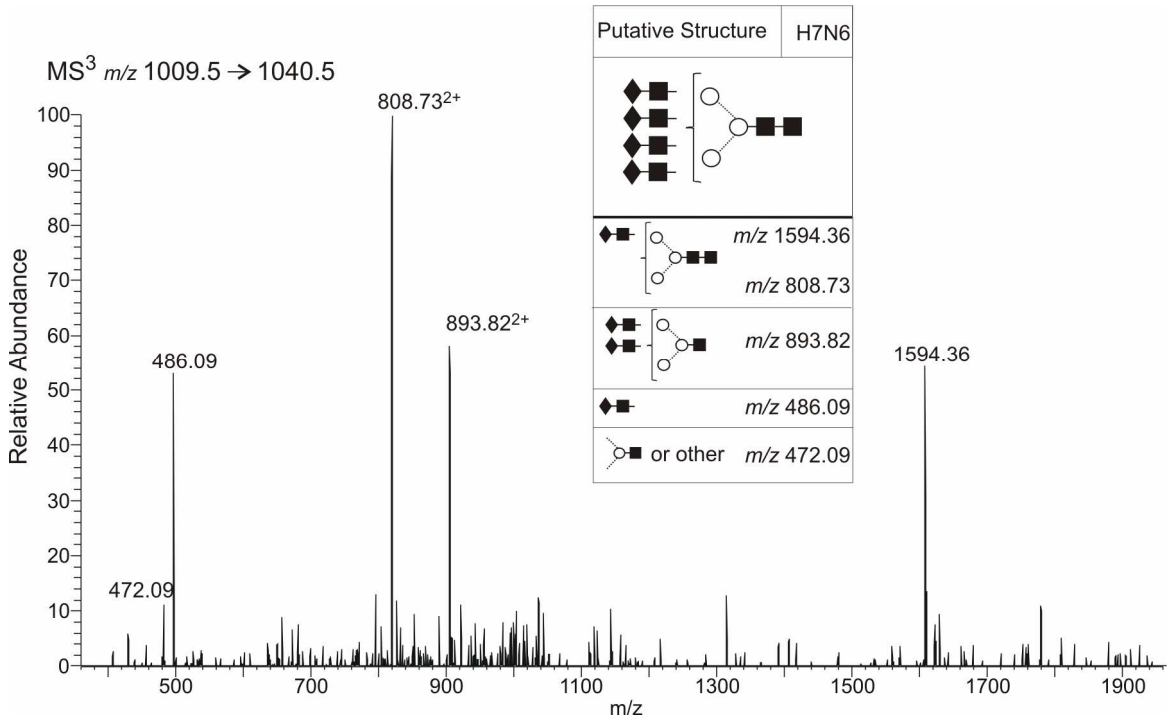


Figure S5. Positive ion ESI ion trap mass spectra of IgG depleted human plasma sample. Samples were all prepared separately on different days and have good reproducibility.

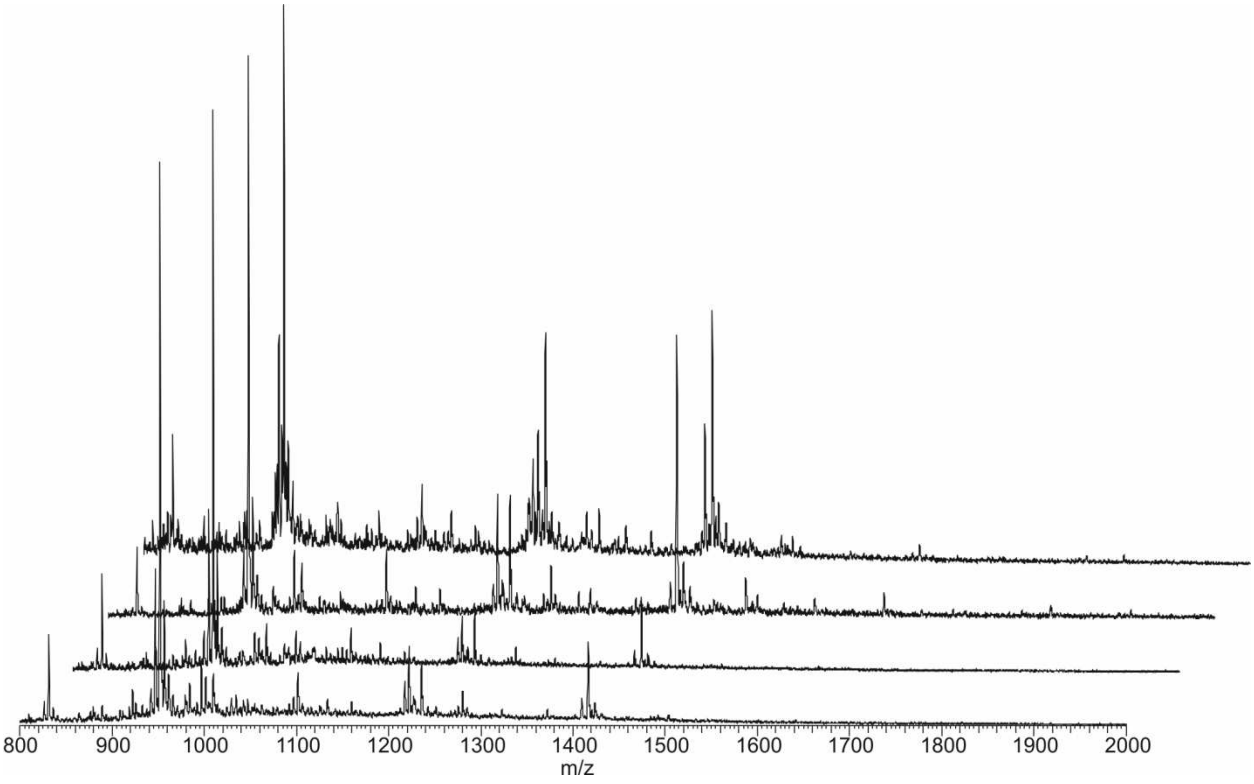


Table S1. Comparative relative abundances for 14 ions, from the spectra shown in Fig. S5.

m/z	Rel. Abund.	Rel. Abund.	Rel. Abund.	Rel. Abund.
831.45	17	11	12	21
951.91	100	100	100	100
956.91	22	22	22	19
1001.82	7	9	13	7
1009.91	9	9	10	11
1101.64	8	12	14	14
1133.64	6	6	8	10
1222.00	10	21	24	19
1235.64	11	23	24	53
1280.00	5	9	10	9
1322.64	3	5	4	9
1416.18	13	51	52	56
1491.09	3	6	8	6
1640.82	1	4	6	5