

Electronic Supporting Information

Hydrophilic interaction/cation-exchange chromatography for glycopeptide enrichment by using a modified strong-cation exchange material

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Table.S1 The chromatographic result of ractopamine and melamine.

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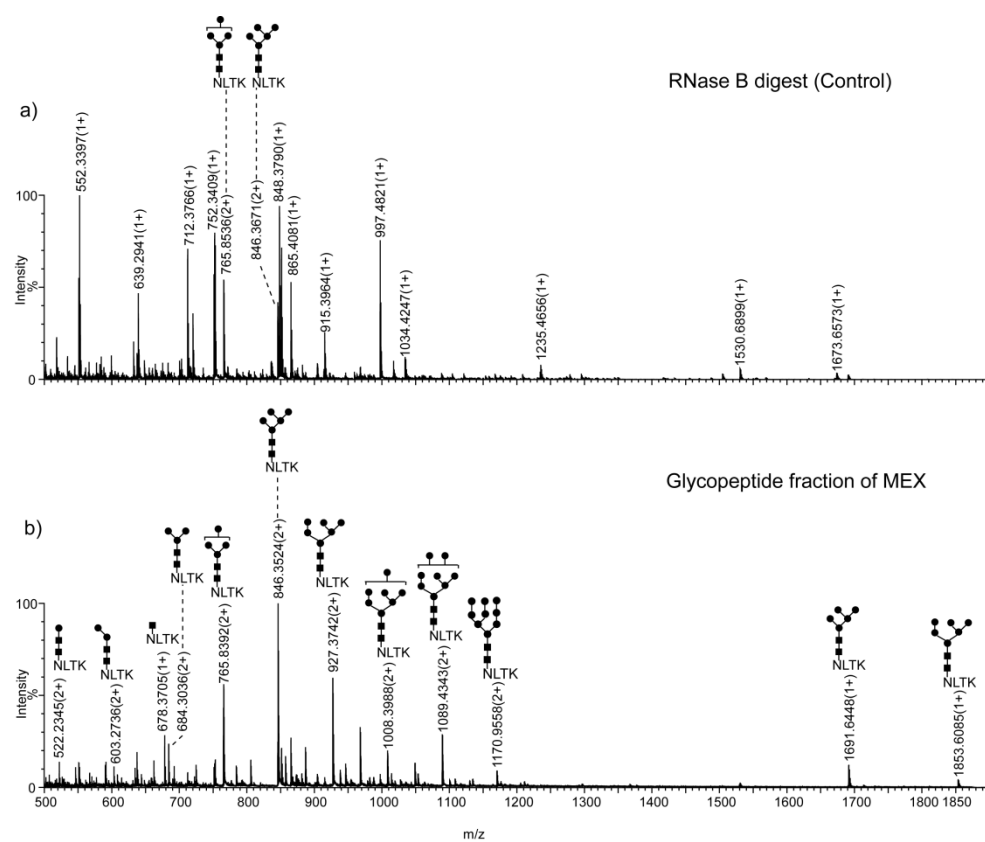


Fig. S1 Nano-ESI-Q-TOF mass spectrum of RNase B digest treated with different approaches a) desalted with C18; b) eluted by MEX with the aqueous solvent mixture of 60% CH₃CN/2% FA /10 mM ammonium acetate. Glycopeptides are labeled with their structures. ■ N-acetylglucosamine; ● mannose

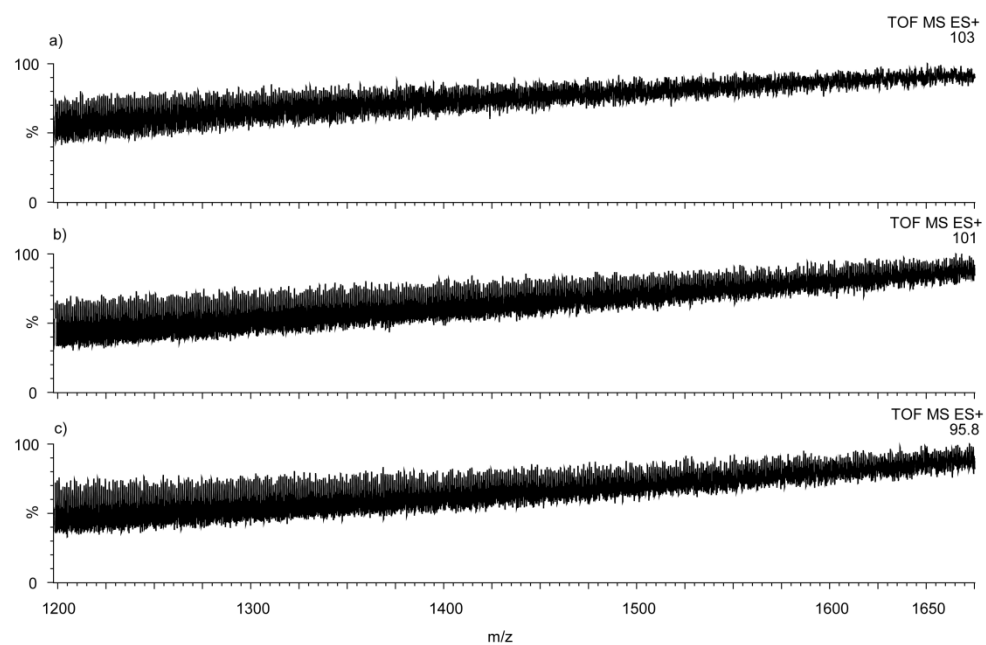


Fig. S2 Nano-ESI-Q-TOF mass spectrum of IgG digest eluted by MEX with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate following the aqueous solvent mixture of 60% CH₃CN/2% FA /10 mM ammonium acetate (20 μL×3). a) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate (20 μL) for the first time. b) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate for the second time (20 μL). c) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate for the third time (20 μL)

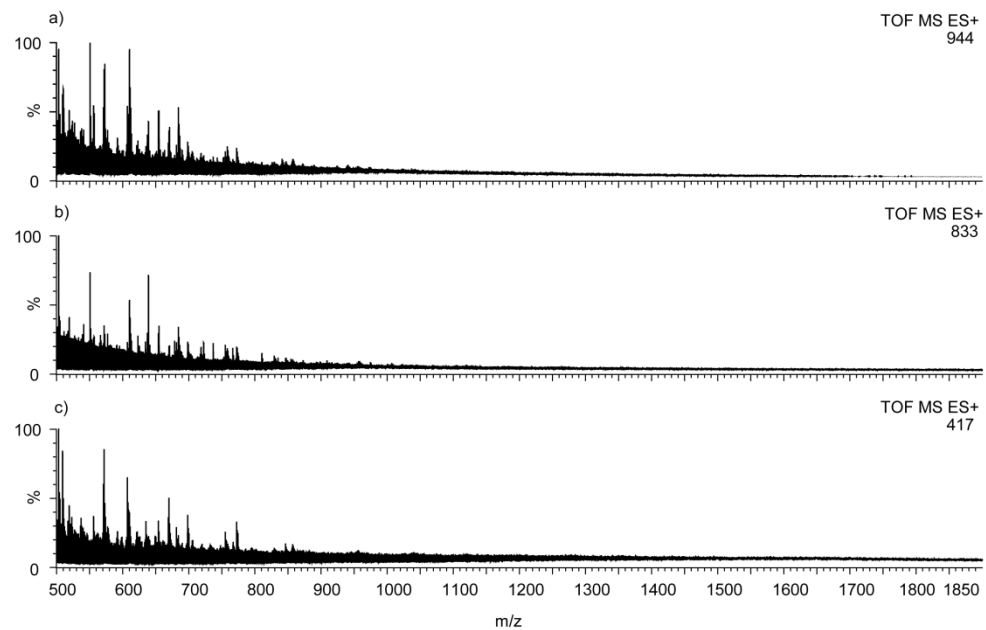


Fig. S3 Nano-ESI-Q-TOF mass spectrum of RNase B digest eluted by MEX with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate following the aqueous solvent mixture of 60% CH₃CN/2% FA /10 mM ammonium acetate (20 μL×3). a) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate (20 μL) for the first time. b) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate (20 μL) for the first time. c) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate (20 μL) for the first time.

mM ammonium acetate for the second time (20 μ L). c) Mass spectrum of the fraction eluted with the aqueous solvent mixture of 10% CH₃CN/2% FA /10 mM ammonium acetate for the third time (20 μ L)

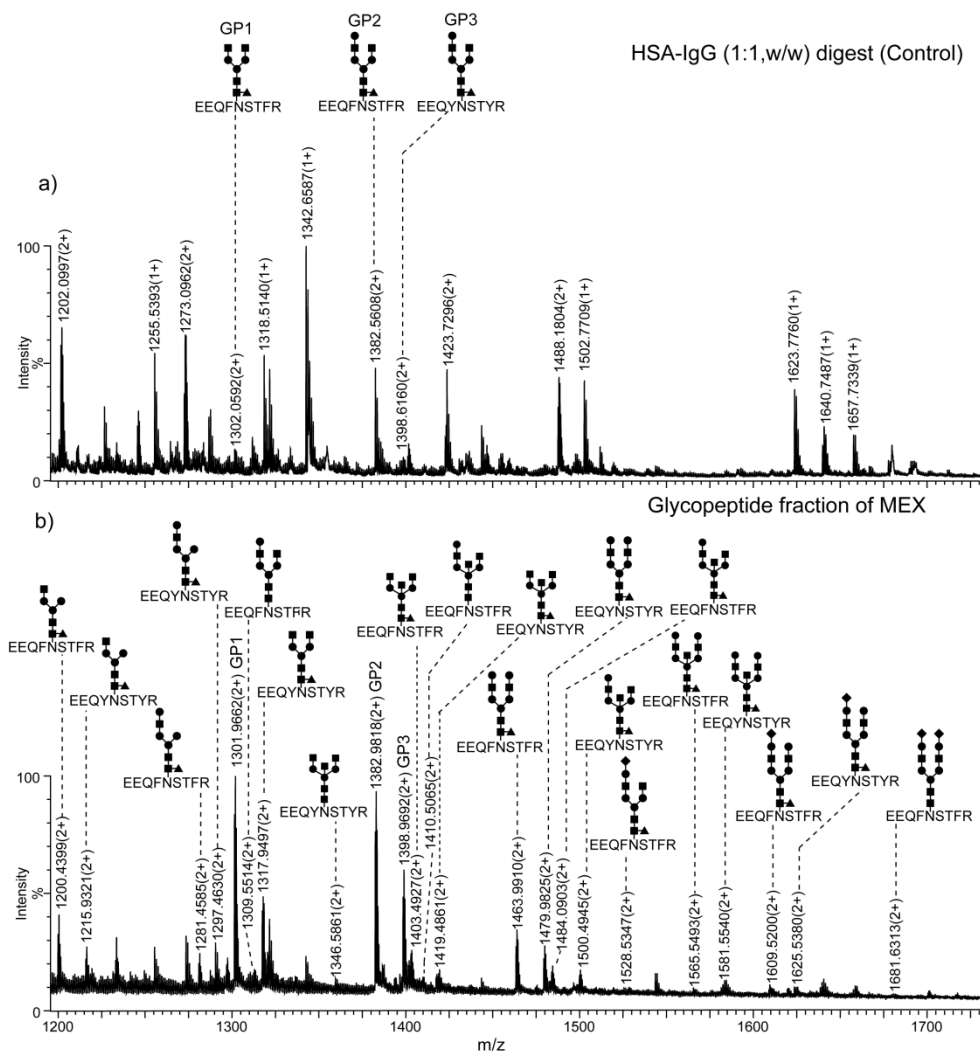


Fig. S4 Nano-ESI-Q-TOF mass spectrum of the digestion mixture of IgG and HSA (1:1, w/w) treated with different approaches a) desalted with C18; b) eluted with by MEX

with the aqueous solvent mixture of 60% CH₃CN/2% FA /10 mM ammonium acetate. Glycopeptides are labeled with their structures. ■ N-acetylglucosamine; ● mannose or galactose; ◆ sialic acid; ▲ fucose. Note that the structures of three glycopeptides that simultaneously appeared in the two fractions are only labeled in a); They are marked with the symbols GP1–3 in b)

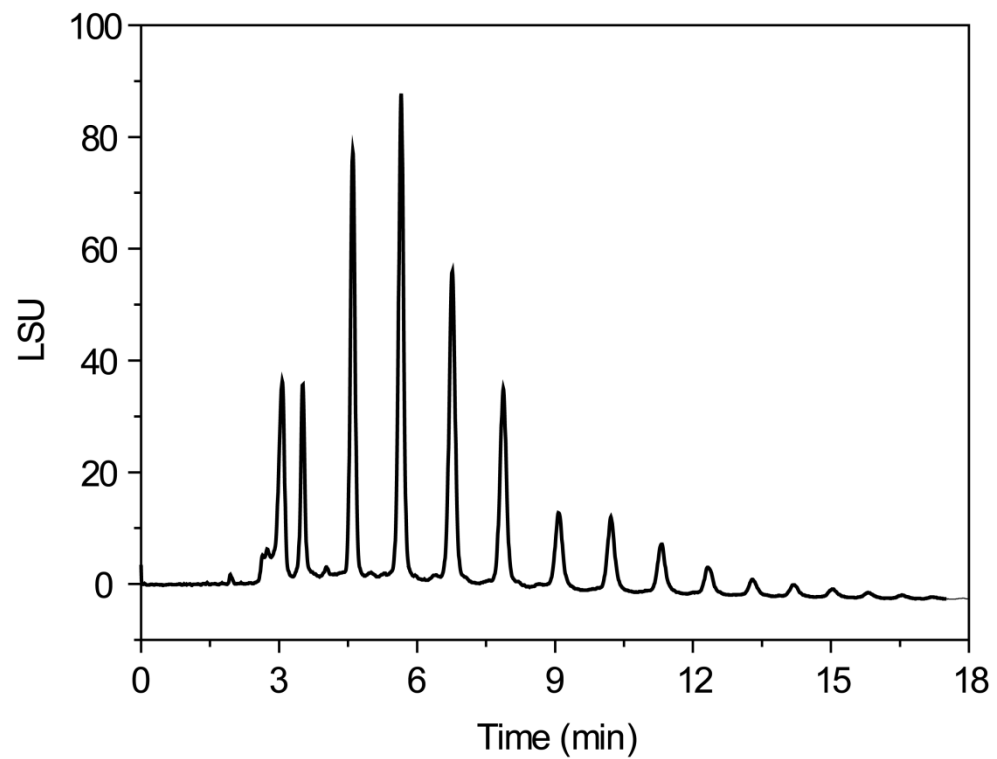


Fig. S5 The chromatographic result of fructooligosaccharide separation. Chromatographic condition: Solvent A. acetonitrile; B. H₂O; C. 100 mM ammonium acetate (pH 4.3). Gradient: 0-20 min A: 85%-70%, B: 10%-25%; C: 5%-5%. Flow rate: 1.0 mL min⁻¹. ELS detector

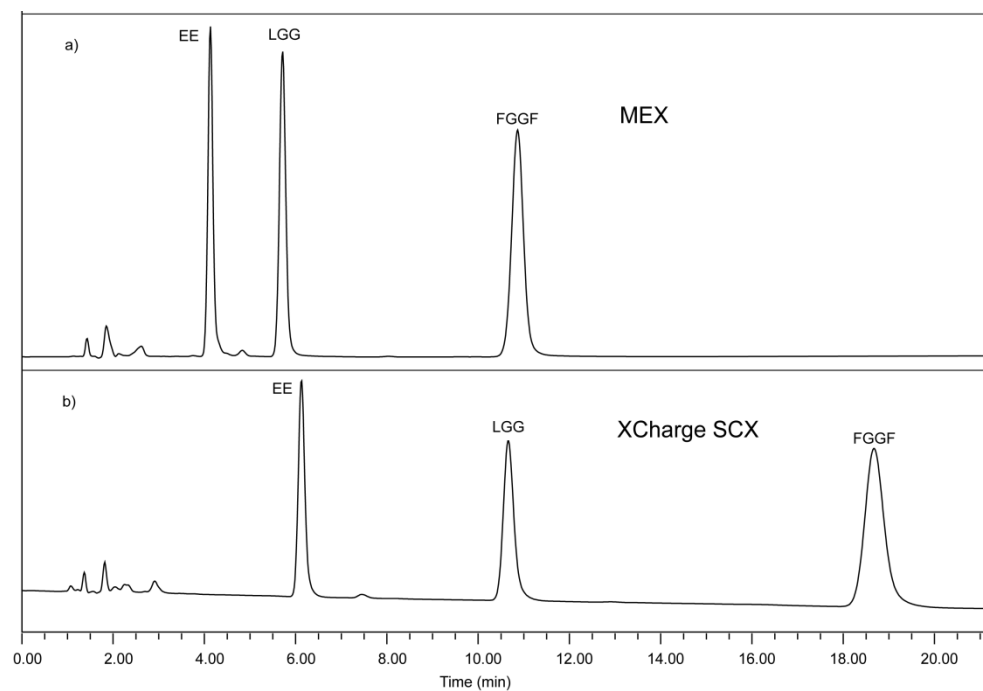


Fig. S6 The chromatographic result of peptide mixture. a) Chromatographic result of MEX column. b) Chromatographic result of XCharge column. Chromatographic condition: Solvent A. acetonitrile; B. H₂O; C. 100 mM sodium perchlorate and 25 mM sodium dihydrogen phosphate (pH 2.75). Isocratic elution: A: 30%, B: 40%, C: 30%. Flow rate: 1.0 mL min⁻¹. UV detector

Table.S1 The chromatographic result of ractopamine and melamine. Chromatographic condition: Solvent A. acetonitrile; B. H₂O; C. 100 mM sodium perchlorate and 10 mM sodium dihydrogen phosphate (pH 4.4). Isocratic elution: A: 30%, B: 30%; C: 40%. Flow rate: 1.0 mL/min. UV detector

	k' (SCX)	k' (MEX)
ractopamine	5.93	4.63
melamine	5.71	2.53

k' = retention factor

Table.S2 The detailed information of indentified AGP glycopeptides

RT (min)	Variant /Site/No.AA	Peptide backbone	Glycans	Theoretical m/z	Observed m/z
48.47	AGP1/Site I/[1-24]	PyroQIPLCANLVPV PITNATLDQITGK	[Hex] ^[a] 5[HexNAc] ^[b] 4[NeuAc] ^[c] 1	1492.0207 (3+)/1119.2656 (4+)	1492.0204 (3+)/1119.2963 (4+)
			[Hex][a]5[HexNAc][b]4[NeuAc][c]1 [Fuc] ^[d] 1	1540.7067 (3+)/1155.7800 (4+)	1540.7003 (3+)/1155.7566 (4+)
			[Hex]5[HexNAc]4[NeuAc]2	1589.0525 (3+)/1192.0394 (4+)	1589.0699 (3+)/1192.0609 (4+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1637.7385 (3+)/1228.5538 (4+)	1637.7211 (3+)/1228.5117 (4+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1662.4174 (3+)/1247.0630 (4+)	1662.7278 (3+)/1247.0670 (4+)
			[Hex]6[HexNAc]5[NeuAc]2	1710.7632 (3+)/1283.3224 (4+)	1710.7239 (3+)/1283.3494 (4+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1759.4492 (3+)/1319.8369 (4+)	1759.7408 (3+)/1319.8699 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1807.7950 (3+)/1356.0962 (4+)	1807.7347 (3+)/1356.1261 (4+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1856.4810 (3+)/1392.6107 (4+)	1856.7209 (3+)/1392.6522 (4+)
			[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1784.1281 (3+)/1338.3460 (4+)	1784.3751 (3+)/1338.3285 (4+)
			[Hex]7[HexNAc]6[NeuAc]2	1832.4739 (3+)/1374.6054 (4+)	1832.8896 (3+)/1374.8628 (4+)
			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1881.1599 (3+)/1411.1199 (4+)	1881.3301 (3+)/1411.6385 (4+)
			[Hex]7[HexNAc]6[NeuAc]3	1929.5057 (3+)/1447.3793 (4+)	1929.7170 (3+)/1447.4221 (4+)
			42.03	AGP1/Site I/[5-24]	CANLVPVPITNAT LDQITGK
[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1395.9478 (3+)/1047.2108 (4+)	1395.9365 (3+)/1047.2069 (4+)			
[Hex]5[HexNAc]4[NeuAc]2	1444.2936 (3+)/1083.4702 (4+)	1444.3027 (3+)/1083.4807 (4+)			
[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1492.9796 (3+)/1119.9847 (4+)	1492.6342 (3+)/1119.4940 (4+)			
[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1517.6585 (3+)/1138.4938 (4+)	1517.6230 (3+)/1138.4943 (4+)			
[Hex]6[HexNAc]5[NeuAc]2	1566.0043 (3+)/1174.7532 (4+)	1566.3345 (3+)/1174.7694 (4+)			
[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1614.6903 (3+)/1211.2677 (4+)	1614.6401 (3+)/1211.0088 (4+)			
[Hex]6[HexNAc]5[NeuAc]3	1663.0361 (3+)/1247.5271 (4+)	1663.0291 (3+)/1247.5369 (4+)			
[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1711.7221 (3+)/1284.0415 (4+)	1711.6254 (3+)/1284.5413 (4+)			
[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1639.3692 (3+)/1229.7769 (4+)	1639.2915 (3+)/1229.7687 (4+)			
[Hex]7[HexNAc]6[NeuAc]2	1687.7150 (3+)/1266.0362 (4+)	1687.6652 (3+)/1266.0372 (4+)			

			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1302.5507 (4+)	1302.5524 (4+)
			[Hex]7[HexNAc]6[NeuAc]3	1784.7468 (3+)/1338.8101 (4+)	1784.3127 (3+)/1338.3014 (4+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1833.4328 (3+)	1833.3009 (3+)
			[Hex]7[HexNAc]6[NeuAc]4	1881.7786 (3+)/1411.5839 (4+)	1881.6985 (3+)/1411.5968 (4+)
			[Hex]5[HexNAc]4[NeuAc]1	1847.3454 (2+)/1231.8969 (3+)	1847.7861 (2+)/1231.9471 (3+)
			[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1920.3743 (2+)/1280.5829 (3+)	1920.7872 (2+)/1280.6102 (3+)
			[Hex]5[HexNAc]4[NeuAc]2	1992.8931 (2+)/1328.9287 (3+)	1992.7358 (2+)/1328.9752 (3+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1377.6147 (3+)/1033.4610 (4+)	1377.9889 (3+)/1033.4735 (4+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1402.2936 (3+)/1051.9702 (4+)	1402.9873 (3+)/1051.9966 (4+)
			[Hex]6[HexNAc]5[NeuAc]2	1450.6394 (3+)/1088.2295 (4+)	1450.6718 (3+)/1088.7672 (4+)
37.91	AGP1/Site I/[8-24]	LVPVPITNATL DQITGK	[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1499.3254 (3+)/1124.7440 (4+)	1499.3521 (3+)/1124.7683 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1547.6712 (3+)/1161.0034 (4+)	1547.6996 (3+)/1161.5437 (4+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1596.3572 (3+)/1197.5179 (4+)	1596.3549 (3+)/1197.5542 (4+)
			[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1524.0043 (3+)/1143.2532 (4+)	1524.6852 (3+)/1143.5256 (4+)
			[Hex]7[HexNAc]6[NeuAc]2	1572.3501 (3+)/1179.5126 (4+)	1572.3508 (3+)/1179.8167 (4+)
			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1621.0361 (3+)/1216.0271 (4+)	1621.3136 (3+)/1216.2490 (4+)
			[Hex]7[HexNAc]6[NeuAc]3	1669.3819 (3+)/1252.2865 (4+)	1669.3788 (3+)/1252.5808 (4+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1718.0679 (3+)/1288.8009 (4+)	1718.0210 (3+)/1288.0142 (4+)
			[Hex]5[HexNAc]4[NeuAc]2	1465.3173 (3+)/1099.2380 (4+)	1465.3473 (3+)/1099.5012 (4+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1514.0033 (3+)/1135.7525 (4+)	1514.3568 (3+)/1135.0178 (4+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1538.6822 (3+)/1154.2617 (4+)	1538.6703 (3+)/1154.5131 (4+)
44.91	AGP2/Site I/[1-20]	PyroQIPLCANLV PVPITNATLDR	[Hex]6[HexNAc]5[NeuAc]2	1587.0280 (3+)/1190.5210 (4+)	1587.3762 (3+)/1190.7979 (4+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1635.7140 (3+)/1227.0355 (4+)	1635.7030 (3+)/1227.0486 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1684.0598 (3+)/1263.2949 (4+)	1684.0546 (3+)/1263.3167 (4+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1732.7458 (3+)/1299.8094 (4+)	1732.7075 (3+)/1299.8462 (4+)
			[Hex]5[HexNAc]4[NeuAc]1	1834.7899 (2+)/1223.5266 (3+)	1834.6931 (2+)/1223.5167 (3+)
			[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1907.8189 (2+)/1272.2126 (3+)	1907.6649 (2+)/1272.5420 (3+)

34.57	AGP2/Site I/[5-20]	CANLVPVPITNA TLDR	[Hex]5[HexNAc]4[NeuAc]2	1980.3376 (2+)/1320.5584 (3+)	1980.6862 (2+)/1320.9440 (3+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1369.2444 (3+)/1027.1833 (4+)	1369.2776 (3+)/1028.4536 (4+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1393.9233 (3+)/1045.6925 (4+)	1393.6039 (3+)/1045.1984 (4+)
			[Hex]6[HexNAc]5[NeuAc]2	1442.2691 (3+)/1081.9518 (4+)	1442.6038 (3+)/1081.9727 (4+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1490.9551 (3+)/1118.4663 (4+)	1490.9641(3+)/1118.4801 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1539.3009 (3+)/1154.7257 (4+)	1539.6568 (3+)/1154.2494 (4+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1587.9869 (3+)/1191.2402 (4+)	1587.9800 (3+)/1191.5122 (4+)
			[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1515.6340 (3+)/1136.9755 (4+)	1515.6082 (3+)/1136.2384(4+)
			[Hex]7[HexNAc]6[NeuAc]2	1563.9798 (3+)/1173.2349 (4+)	1563.3379 (3+)/1173.5031 (4+)
			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1612.6658 (3+)/1209.7493 (4+)	1612.9924 (3+)/1209.5171 (4+)
			[Hex]7[HexNAc]6[NeuAc]3	1246.0087 (4+)	1246.2709 (4+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1709.6976 (3+)	1709.6542 (3+)
			[Hex]7[HexNAc]6[NeuAc]4	1758.0434 (3+)/1318.7826 (4+)	1758.6407 (3+)/1318.9702 (4+)
			[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1806.7294 (3+)/1355.2970 (4+)	1806.6510 (3+)/1355.3211 (4+)
			30.84	AGP2/Site I/[8-20]	LVPVPITNA TLDR
[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1734.7715 (2+)/1156.8477 (3+)	1734.7537 (2+)/1156.0205 (3+)			
[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1880.3192 (2+)/1253.8795 (3+)	1880.2570 (2+)/1253.5883 (3+)			
[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1917.3376 (2+)/1278.5584 (3+)	1917.1951 (2+)/1278.5612 (3+)			
[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1375.5902 (3+)/1031.9427 (4+)	1375.6167 (3+)/1031.9653 (4+)			
[Hex]6[HexNAc]5[NeuAc]3	1423.9360 (3+)/1068.2020 (4+)	1423.9817 (3+)/1068.4596 (4+)			
[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1400.2691 (3+)/1050.4518 (4+)	1400.2755 (3+)/1050.5344 (4+)			
[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1497.3009 (3+)/1123.2257 (4+)	1497.2922 (3+)/1123.2565 (4+)			
[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1594.3327 (3+)/1195.9995 (4+)	1594.3022 (3+)/1195.9954 (4+)			
[Hex]5[HexNAc]4[NeuAc]1	1355.5083 (2+)/904.0055 (3+)	1355.5544 (2+)/904.0477 (3+)			
[Hex]5[HexNAc]4[NeuAc]2	1501.0560 (2+)/1001.0373 (3+)	1501.0983 (2+)/1001.4078 (3+)			
[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1574.0849 (2+)/1049.7233 (3+)	1574.1097 (2+)/1049.7679 (3+)			
[Hex]6[HexNAc]5[NeuAc]2	1683.6220 (2+)/1122.7480 (3+)	1683.6300 (2+)/1122.7983 (3+)			

10.11	AGP1,2/Site II/[34-39]	NEEYNK	[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1756.6510 (2+)/1171.4340 (3+)	1756.6581 (2+)/1171.4657 (3+)
			[Hex]6[HexNAc]5[NeuAc]3	1829.1697 (2+)/1219.7798 (3+)	1829.1116 (2+)/1219.8219 (3+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1902.1987 (2+)/1268.4658 (3+)	1902.0870 (2+)/1268.5107 (3+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1390.1765 (3+)/1042.8824 (4+)	1390.5842 (3+)/1042.7264 (4+)
			[Hex]7[HexNAc]6[NeuAc]4	1438.5223 (3+)/1079.1417 (4+)	1438.5498 (3+)/1079.9070 (4+)
			[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1487.2083 (3+)/1115.6562 (4+)	1487.2280 (3+)/1115.9105 (4+)
42.85	AGP1,2/Site III/[40-55]	SVQEIQATFFY FTPNK	[Hex]5[HexNAc]4[NeuAc]1	1917.3116 (2+)/1278.5410 (3+)	1917.2113 (2+)/1278.5743 (3+)
			[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1990.3405 (2+)/1327.2270 (3+)	1990.1812 (2+)/1327.5880 (3+)
			[Hex]5[HexNAc]4[NeuAc]2	1375.5728 (3+)/1031.9296 (4+)	1375.6167 (3+)/1031.9534 (4+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1424.2588 (3+)/1068.4441 (4+)	1424.3022 (3+)/1068.4718 (4+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1448.9377 (3+)/1086.9533 (4+)	1448.9972 (3+)/1086.9994 (4+)
			[Hex]6[HexNAc]5[NeuAc]2	1497.2835 (3+)/1123.2127 (4+)	1497.3064 (3+)/1123.2440 (4+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1545.9695 (3+)/1159.7271 (4+)	1545.9993 (3+)/1159.7683 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1594.3153 (3+)/1195.9865 (4+)	1594.3328 (3+)/1196.0199 (4+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1643.0013 (3+)/1232.5010 (4+)	1643.0039 (3+)/1232.5308 (4+)
			[Hex]7[HexNAc]6[NeuAc]2	1618.9942 (3+)/1214.4957 (4+)	1619.0084 (3+)/1214.5353 (4+)
			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1667.6802 (3+)/1251.0102 (4+)	1667.6882 (3+)/1251.0380 (4+)
			[Hex]7[HexNAc]6[NeuAc]3	1716.0260 (3+)/1287.2695 (4+)	1716.0154 (3+)/1287.3112 (4+)
[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1764.7120 (3+)/1323.7840 (4+)	1764.6884 (3+)/1323.8066 (4+)			
[Hex]7[HexNAc]6[NeuAc]4	1813.0578 (3+)/1360.0434 (4+)	1813.0004 (3+)/1360.0892 (4+)			
[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1861.7438 (3+)/1396.5579 (4+)	1861.7064 (3+)/1396.5856 (4+)			
48.47	AGP1,2/Site III/[40-63]	SVQEIQATFFYF TPNKTEDTIFLR	[Hex]5[HexNAc]4[NeuAc]1	1604.0443 (3+)/1203.2832 (4+)	1604.3817 (3+)/1203.5476 (4+)
			[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1652.7303 (3+)/1239.7977 (4+)	1652.6785 (3+)/1239.7689 (4+)
			[Hex]5[HexNAc]4[NeuAc]2	1701.0761 (3+)/1276.0571 (4+)	1701.0792 (3+)/1276.7908 (4+)
			[Hex]6[HexNAc]5[NeuAc]2	1822.7868 (3+)/1367.3401 (4+)	1822.7186 (3+)/1367.3773 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1919.8186 (3+)/1440.1140 (4+)	1919.7352 (3+)/1440.1483 (4+)
			[Hex]5[HexNAc]4[NeuAc]1	1915.7750 (2+)/1277.5167 (3+)	1915.6913 (2+)/1277.5702 (3+)

30.54	AGP1/Site IV/[69-83]	QDQCIYNTTYLN VQR	[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1988.8040 (2+)/1326.2026 (3+)	1988.8040 (2+)/1326.2026 (3+)
			[Hex]5[HexNAc]4[NeuAc]2	1374.5485 (3+)/1031.1614 (4+)	1374.5889 (3+)/1031.1699 (4+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1423.2344 (3+)/1067.6758 (4+)	1423.9678 (3+)/1068.2423 (4+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1447.9133 (3+)/1086.1850 (4+)	1447.9424 (3+)/1086.9630 (4+)
			[Hex]6[HexNAc]5[NeuAc]2	1496.2592 (3+)/1122.4444 (4+)	1496.3058 (3+)/1122.4886 (4+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1544.9451 (3+)/1158.9589 (4+)	1544.9968 (3+)/1158.9755 (4+)
			[Hex]6[HexNAc]5[NeuAc]3	1593.2910 (3+)/1195.2182 (4+)	1593.6296 (3+)/1195.2661 (4+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1641.9769 (3+)/1231.7327 (4+)	1641.9856 (3+)/1231.7784 (4+)
			[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1569.6240 (3+)/1177.4680 (4+)	1569.6412 (3+)/1177.5094 (4+)
			[Hex]7[HexNAc]6[NeuAc]2	1617.9699 (3+)/1213.7274 (4+)	1617.9825 (3+)/1213.7626 (4+)
			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1666.6558 (3+)/1250.2419 (4+)	1666.6624 (3+)/1250.5542 (4+)
			[Hex]7[HexNAc]6[NeuAc]3	1715.0017 (3+)/1286.5013 (4+)	1715.0051 (3+)/1286.5557 (4+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1763.6876 (3+)/1323.0157 (4+)	1763.6641 (3+)/1323.5647 (4+)
			[Hex]7[HexNAc]6[NeuAc]4	1812.0335 (3+)/1359.2751 (4+)	1812.3240 (3+)/1359.5713 (4+)
			[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1860.7194 (3+)/1395.7896 (4+)	1860.6545 (3+)/1395.2462 (4+)
			30.54	AGP2/Site IV/[69-83]	QNQCFYNSSY LNVQR
[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1991.2885 (2+)/1327.8590 (3+)	1991.2194 (2+)/1327.6283 (3+)			
[Hex]5[HexNAc]4[NeuAc]2	1376.2048 (3+)/1032.4036 (4+)	1376.6036 (3+)/1032.4640 (4+)			
[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1424.8908 (3+)/1068.9181 (4+)	1424.6509 (3+)/1068.7498 (4+)			
[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1449.5697 (3+)/1087.4273 (4+)	1449.3069 (3+)/1087.7186 (4+)			
[Hex]6[HexNAc]5[NeuAc]2	1497.9155 (3+)/1123.6867 (4+)	1497.9644 (3+)/1123.2318 (4+)			
[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1546.6015 (3+)/1160.2011 (4+)	1546.3188 (3+)/1160.2719 (4+)			
[Hex]6[HexNAc]5[NeuAc]3	1594.9473 (3+)/1196.4605 (4+)	1594.3181 (3+)/1196.0199 (4+)			
[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1643.6333 (3+)/1232.9750 (4+)	1643.3335 (3+)/1232.2844 (4+)			
[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1571.2804 (3+)/1178.7103 (4+)	1571.6477 (3+)/1178.5094 (4+)			
[Hex]7[HexNAc]6[NeuAc]2	1619.6262 (3+)/1214.9697 (4+)	1619.6627 (3+)/1214.2778 (4+)			
[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1668.3122 (3+)/1251.4842 (4+)	1668.3223 (3+)/1251.0380 (4+)			

			[Hex]7[HexNAc]6[NeuAc]3	1716.6580 (3+)/1287.7435 (4+)	1716.6735 (3+)/1287.0460 (4+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1765.3440 (3+)/1324.2580 (4+)	1765.3247 (3+)/1324.5732 (4+)
			[Hex]7[HexNAc]6[NeuAc]4	1813.6898 (3+)/1360.5174 (4+)	1813.3306 (3+)/1360.8391 (4+)
			[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1862.3758 (3+)/1397.0319 (4+)	1862.6467 (3+)/1397.5941 (4+)
			[Hex]5[HexNAc]4[NeuAc]1	1345.5295 (2+)/897.3530 (3+)	1345.5717 (2+)/897.3700 (3+)
			[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1418.5585 (2+)/946.0390 (3+)	1418.6174 (2+)/946.4060 (3+)
			[Hex]5[HexNAc]4[NeuAc]2	1491.0772 (2+)/994.3848 (3+)	1491.1355 (2+)/994.4141 (3+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1564.1062 (2+)/1043.0708 (3+)	1564.1123 (2+)/1043.4069 (3+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1601.1245 (2+)/1067.7497 (3+)	1601.1272 (2+)/1067.4088 (3+)
10.11	AGP1/Site V/ [84-90]	ENGTISR	[Hex]6[HexNAc]5[NeuAc]2	1673.6433 (2+)/1116.0955 (3+)	1673.6538 (2+)/1116.1328 (3+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1746.6722 (2+)/1164.7815 (3+)	1746.6265 (2+)/1165.4771 (3+)
			[Hex]6[HexNAc]5[NeuAc]3	1819.1910 (2+)/1213.1273 (3+)	1819.1403 (2+)/1213.1704 (3+)
			[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1892.2199 (2+)/1261.8133 (3+)	1892.1604 (2+)/1261.8719 (3+)
			[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1783.6906 (2+)/892.3453 (4+)	1783.5795 (2+)/892.3395 (4+)
			[Hex]7[HexNAc]6[NeuAc]2	1237.8062 (3+)/928.6047 (4+)	1237.8307 (3+)/928.8641 (4+)
			[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1286.4922 (3+)/965.1191 (4+)	1286.5024 (3+)/965.3749 (4+)
			[Hex]7[HexNAc]6[NeuAc]3[Fuc]1	1383.5240 (3+)/1037.8930 (4+)	1383.5784 (3+)/1037.7198 (4+)
			[Hex]7[HexNAc]6[NeuAc]4	1431.8698 (3+)/1074.1524 (4+)	1431.9138 (3+)/1074.4482 (4+)
			[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1480.5558 (3+)/1110.6668 (4+)	1480.6083 (3+)/1110.4580 (4+)
			[Hex]5[HexNAc]4[NeuAc]1[Fuc]1	1411.5507 (2+)/941.3671 (3+)	1411.6246 (2+)/941.0695 (3+)
			[Hex]5[HexNAc]4[NeuAc]2	1484.0694 (2+)/989.7129 (3+)	1484.1227 (2+)/989.3854 (3+)
			[Hex]5[HexNAc]4[NeuAc]2[Fuc]1	1557.0984 (2+)/1038.3989 (3+)	1557.0907 (2+)/1038.4104 (3+)
			[Hex]6[HexNAc]5[NeuAc]1[Fuc]1	1594.1167 (2+)/1063.0778 (3+)	1594.1262 (2+)/1063.0903 (3+)
			[Hex]6[HexNAc]5[NeuAc]2	1666.6355 (2+)/1111.4236 (3+)	1666.6472 (2+)/1111.4580 (3+)
			[Hex]6[HexNAc]5[NeuAc]2[Fuc]1	1739.6644 (2+)/1160.1096 (3+)	1739.6505 (2+)/1160.1710 (3+)
			[Hex]6[HexNAc]5[NeuAc]3	1812.1832 (2+)/1208.4554 (3+)	1812.1195 (2+)/1208.5020 (3+)
10.11	AGP2/Site V/ [84-90]	ENGTVSR	[Hex]6[HexNAc]5[NeuAc]3[Fuc]1	1885.2121 (2+)/1257.1414 (3+)	1885.0973 (2+)/1257.2024 (3+)

[Hex]7[HexNAc]6[NeuAc]1[Fuc]1	1776.6828 (2+)/1184.7885 (3+)	1776.1604 (2+)/1184.4803 (3+)
[Hex]7[HexNAc]6[NeuAc]2	1849.2015 (2+)/1233.1343 (3+)	1849.1201 (2+)/1233.1538 (3+)
[Hex]7[HexNAc]6[NeuAc]2[Fuc]1	1922.2305 (2+)/1281.8203 (3+)	1922.5967 (2+)/1281.8405 (3+)
[Hex]7[HexNAc]6[NeuAc]3	1994.7492 (2+)/1330.1661 (3+)	1994.9951 (2+)/1330.5251 (3+)
[Hex]7[HexNAc]6[NeuAc]4	1427.1979 (3+)/1070.6485 (4+)	1427.5679 (3+)/1070.9379 (4+)
[Hex]7[HexNAc]6[NeuAc]4[Fuc]1	1475.8839 (3+)/1107.1629 (4+)	1475.5647 (3+)/1107.4323 (4+)

[a] Hex, Hexose. [b] HexNAc, N-acetylhexosamine. [c] NeuAc, Sialic acid. [d] Fuc, Fucose.