

Table S2. Raw data of glycan array analysis performed with CCL2. RFU = Relative Fluorescence Units; SD = Standard deviation

No.	Glycan structure – spacer*	RFU	SD
1	Neu5Ac α 2-8Neu5Ac β -Sp17	155.0	88.2
2	Neu5Ac α 2-8Neu5Ac α 2-8Neu5Ac β Sp8	66.6	38.8
3	Neu5Gc β 2-6Gal β 1-4GlcNAc-Sp8	182.6	74.3
4	Gal β 1-3GlcNAc β 1-2Man α 1-3(Gal β 1-3GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp19	453.7	150.8
5	Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-3(Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	183.9	43.5
6	α -D-Gal-Sp8	280.7	94.2
7	α -D-Glc-Sp8	594.5	365.1
8	α -D-Man-Sp8	152.9	88.5
9	α -GalNAc-Sp8	151.8	60.8
10	α -L-Fuc-Sp8	416.6	386.4
11	α -L-Fuc-Sp9	136.8	10.1
12	α -L-Rha-Sp8	112.5	57.6
13	α -Neu5Ac-Sp8	247.4	195.8
14	α -Neu5Ac-Sp11	119.3	140.3
15	β -Neu5Ac-Sp8	122.4	61.6
16	β -D-Gal-Sp8	194.7	83.6
17	β -D-Glc-Sp8	113.2	9.4
18	β -D-Man-Sp8	130.5	60.3
19	β -GalNAc-Sp8	273.6	160.5
20	β -GlcNAc-Sp0	172.7	36.2
21	β -GlcNAc-Sp8	160.7	63.6
22	β -GlcN(Gc)-Sp8	136.2	139.4
23	(Gal β 1-4GlcNAc β)2-3,6-GalNAc α -Sp8	397.4	201.5
24	GlcNAc β 1-3(GlcNAc β 1-4)(GlcNAc β 1-6)GlcNAc-Sp8	103.1	41.2
25	[3OSO3][6OSO3]Gal β 1-4[6OSO3]GlcNAc β -Sp0	367.7	238.4
26	[3OSO3][6OSO3]Gal β 1-4GlcNAc β -Sp0	193.4	34.3
27	[3OSO3]Gal β 1-4Glc β -Sp8	152.3	96.0
28	[3OSO3]Gal β 1-4(6OSO3)Glc β -Sp0	151.3	50.4
29	[3OSO3]Gal β 1-4(6OSO3)Glc β -Sp8	1039.1	720.1
30	[3OSO3]Gal β 1-3(Fuc α 1-4)GlcNAc β -Sp8	628.7	695.7
31	[3OSO3]Gal β 1-3GalNAc α -Sp8	216.8	113.9
32	[3OSO3]Gal β 1-3GlcNAc β -Sp8	403.9	425.3
33	[3OSO3]Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp8	265.1	74.5
34	[3OSO3]Gal β 1-4[6OSO3]GlcNAc β -Sp8	101.0	90.0
35	[3OSO3]Gal β 1-4GlcNAc β -Sp0	115.6	12.2
36	[3OSO3]Gal β 1-4GlcNAc β -Sp8	110.8	72.3
37	[3OSO3]Gal β -Sp8	75.5	25.5
38	[4OSO3][6OSO3]Gal β 1-4GlcNAc β -Sp0	222.7	221.8
39	[4OSO3]Gal β 1-4GlcNAc β -Sp8	350.4	63.8
40	6-H2PO3Man α -Sp8	118.9	53.1
41	[6OSO3]Gal β 1-4Glc β -Sp0	307.4	46.8
42	[6OSO3]Gal β 1-4Glc β -Sp8	269.4	180.9
43	[6OSO3]Gal β 1-4GlcNAc β -Sp8	133.9	115.9
44	[6OSO3]Gal β 1-4[6OSO3]Glc β -Sp8	298.1	154.7
45	NeuAc α 2-3[6OSO3]Gal β 1-4GlcNAc β -Sp8	40316.6	1380.1
46	[6OSO3]GlcNAc β -Sp8	141.7	114.3
47	9NAcNeu5Ac α -Sp8	8595.4	918.0
48	9NAcNeu5Ac α 2-6Gal β 1-4GlcNAc β -Sp8	239.4	174.8
49	Man α 1-3(Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp13	525.3	166.5
50	GlcNAc β 1-2Man α 1-3(GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp13	674.3	270.7
51	Gal β 1-4GlcNAc β 1-2Man α 1-3(Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-	575.8	464.2

	4GlcNAc β -Sp13		
52	Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-3(Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp13	336.0	84.3
53	Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-3(Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp8	535.8	285.5
54	Fuc α 1-2Gal β 1-3GalNAc β 1-3Gala-Sp9	854.8	233.8
55	Fuc α 1-2Gal β 1-3GalNAc β 1-3Gala1-4Gal β 1-4Glc β -Sp9	146.7	31.0
56	Fuc α 1-2Gal β 1-3(Fuc α 1-4)GlcNAc β -Sp8	101.3	43.1
57	Fuc α 1-2Gal β 1-3GalNAc α -Sp8	83.3	18.4
58	Fuc α 1-2Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc β -Sp0	108.9	42.3
59	Fuc α 1-2Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc β -Sp9	190.1	16.2
60	Fuc α 1-2Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc β -Sp10	99.7	48.5
61	Fuc α 1-2Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc β -Sp8	261.3	84.7
62	Fuc α 1-2Gal β 1-3GlcNAc β -Sp0	154.5	95.8
63	Fuc α 1-2Gal β 1-3GlcNAc β -Sp8	197.8	44.3
64	Fuc α 1-2Gal β 1-4(Fuc α 1-3)GlcNAc β 1-3Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp0	495.0	369.3
65	Fuc α 1-2Gal β 1-4(Fuc α 1-3)GlcNAc β 1-3Gal β 1-4(Fuc α 1-3)GlcNAc β 1-3Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp0	1323.8	228.2
66	Fuc α 1-2Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp0	80.7	29.0
67	Fuc α 1-2Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp8	3466.0	907.7
68	Fuc α 1-2Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc-Sp0	57.3	54.0
69	Fuc α 1-2Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	282.4	119.0
70	Fuc α 1-2Gal β 1-4GlcNAc β -Sp0	246.8	94.3
71	Fuc α 1-2Gal β 1-4GlcNAc β -Sp8	288.4	84.2
72	Fuc α 1-2Gal β 1-4Glc β -Sp0	250.1	152.4
73	Fuc α 1-2Gal β -Sp8	200.0	100.4
74	Fuc α 1-3GlcNAc β -Sp8	211.4	160.5
75	Fuc α 1-4GlcNAc β -Sp8	183.1	9.3
76	Fuc β 1-3GlcNAc β -Sp8	297.6	398.7
77	GalNAc α 1-3(Fuc α 1-2)Gal β 1-3GlcNAc β -Sp0	107.7	46.0
78	GalNAc α 1-3(Fuc α 1-2)Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp0	192.0	73.9
79	GalNAc α 1-3(Fuc α 1-2)Gal β 1-4GlcNAc β -Sp0	193.0	98.0
80	GalNAc α 1-3(Fuc α 1-2)Gal β 1-4GlcNAc β -Sp8	104.3	38.4
81	GalNAc α 1-3(Fuc α 1-2)Gal β 1-4Glc β -Sp0	94.5	79.5
82	GalNAc α 1-3(Fuc α 1-2)Gal β -Sp8	90.7	10.7
83	GalNAc α 1-3GalNAc β -Sp8	162.6	41.6
84	GalNAc α 1-3Gal β -Sp8	176.6	38.9
85	GalNAc α 1-4(Fuc α 1-2)Gal β 1-4GlcNAc β -Sp8	248.7	68.9
86	GalNAc β 1-3GalNAc α -Sp8	123.7	70.5
87	GalNAc β 1-3(Fuc α 1-2)Gal β -Sp8	304.1	176.9
88	GalNAc β 1-3Gala1-4Gal β 1-4GlcNAc β -Sp0	204.6	208.7
89	GalNAc β 1-4(Fuc α 1-3)GlcNAc β -Sp0	40042.3	1963.4
90	GalNAc β 1-4GlcNAc β -Sp0	285.8	388.3
91	GalNAc β 1-4GlcNAc β -Sp8	117.5	83.8
92	Gal α 1-2Gal β -Sp8	119.5	55.8
93	Gal α 1-3(Fuc α 1-2)Gal β 1-3GlcNAc β -Sp0	91.2	21.8
94	Gal α 1-3(Fuc α 1-2)Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp0	236.8	52.3
95	Gal α 1-3(Fuc α 1-2)Gal β 1-4GlcNAc-Sp0	113.8	39.2
96	Gal α 1-3(Fuc α 1-2)Gal β 1-4Glc β -Sp0	64.7	27.1
97	Gal α 1-3(Fuc α 1-2)Gal β -Sp8	300.8	78.4
98	Gal α 1-3(Gal α 1-4)Gal β 1-4GlcNAc β -Sp8	298.6	276.1
99	Gal α 1-3GalNAc α -Sp8	445.6	175.2
100	Gal α 1-3GalNAc β -Sp8	856.8	310.3
101	Gal α 1-3Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp8	10567.5	1155.2
102	Gal α 1-3Gal β 1-3GlcNAc β -Sp0	95.8	24.3
103	Gal α 1-3Gal β 1-4GlcNAc β -Sp8	165.9	121.6
104	Gal α 1-3Gal β 1-4Glc β -Sp0	52.1	21.0
105	Gal α 1-3Gal β -Sp8	31.4	22.3

106	Gal α 1-4(Fuca1-2)Gal β 1-4GlcNAc β -Sp8	133.8	72.7
107	Gal α 1-4Gal β 1-4GlcNAc β -Sp0	86.7	20.3
108	Gal α 1-4Gal β 1-4GlcNAc β -Sp8	257.8	45.7
109	Gal α 1-4Gal β 1-4Glc β -Sp0	123.3	43.5
110	Gal α 1-4GlcNAc β -Sp8	610.1	876.5
111	Gal α 1-6Glc β -Sp8	236.9	167.1
112	Gal β 1-2Gal β -Sp8	109.0	41.8
113	Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	457.2	336.6
114	Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	24347.1	2789.4
115	Gal β 1-3(Fuca1-4)GlcNAc-Sp0	115.3	16.2
116	Gal β 1-3(Fuca1-4)GlcNAc-Sp8	97.0	69.6
117	Gal β 1-3(Fuca1-4)GlcNAc β -Sp8	98.4	53.2
118	Gal β 1-3(Gal β 1-4GlcNAc β 1-6)GalNAc α -Sp8	105.8	31.3
119	Gal β 1-3(GlcNAc β 1-6)GalNAc α -Sp8	103.1	40.4
120	Gal β 1-3(Neu5Ac α 2-6)GalNAc α -Sp8	183.1	117.7
121	Gal β 1-3(Neu5Ac β 2-6)GalNAc α -Sp8	154.0	33.0
122	Gal β 1-3(Neu5Ac α 2-6)GlcNAc β 1-4Gal β 1-4Glc β -Sp10	154.4	92.3
123	Gal β 1-3GalNAc α -Sp8	244.6	147.8
124	Gal β 1-3GalNAc β -Sp8	159.6	127.1
125	Gal β 1-3GalNAc β 1-3Gal α 1-4Gal β 1-4Glc β -Sp0	154.2	53.9
126	Gal β 1-3GalNAc β 1-4(Neu5Ac α 2-3)Gal β 1-4Glc β -Sp0	64.6	19.7
127	Gal β 1-3GalNAc β 1-4Gal β 1-4Glc β -Sp8	95.5	93.4
128	Gal β 1-3Gal β -Sp8	106.4	21.5
129	Gal β 1-3GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	119.3	29.1
130	Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc β -Sp10	188.3	32.2
131	Gal β 1-3GlcNAc β -Sp0	117.3	33.5
132	Gal β 1-3GlcNAc β -Sp8	138.7	45.6
133	Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	7830.5	6655.6
134	Gal β 1-4(Fuca1-3)GlcNAc β -Sp8	8611.1	3385.6
135	Gal β 1-4(Fuca1-3)GlcNAc β 1-4Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	35683.2	863.8
136	Gal β 1-4(Fuca1-3)GlcNAc β 1-4Gal β 1-4(Fuca1-3)GlcNAc β 1-4Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	30025.6	536.4
137	Gal β 1-4[6OSO3]Glc β -Sp0	160.0	132.5
138	Gal β 1-4[6OSO3]Glc β -Sp8	96.1	25.5
139	Gal β 1-4GalNAc α 1-3(Fuca1-2)Gal β 1-4GlcNAc β -Sp8	235.3	81.3
140	Gal β 1-4GalNAc β 1-3(Fuca1-2)Gal β 1-4GlcNAc β -Sp8	319.4	225.3
141	Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-2Man α 1-3(Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1 β 1-4GlcNAc β -Sp12	316.8	240.3
142	Gal β 1 β 1-4GlcNAc β 1 β 1-3GalNAc α -Sp8	188.0	82.4
143	Gal β 1 β 1-4GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	33357.1	1008.9
144	Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	145.9	37.9
145	Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	87.6	118.0
146	Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc β -Sp0	263.9	75.0
147	Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc β -Sp8	37.1	85.8
148	Gal β 1-4GlcNAc β 1-6(Gal β 1-3)GalNAc α -Sp8	137.2	71.5
149	Gal β 1-4GlcNAc β 1-6GalNAc α -Sp8	139.4	7.6
150	Gal β 1-4GlcNAc β -Sp0	165.4	72.6
151	Gal β 1-4GlcNAc β -Sp8	84.7	33.1
152	Gal β 1-4Glc β -Sp0	76.3	70.4
153	Gal β 1-4Glc β -Sp8	119.7	27.0
154	GlcNAc α 1-3Gal β 1-4GlcNAc β -Sp8	113.3	43.4
155	GlcNAc α 1-6Gal β 1-4GlcNAc β -Sp8	158.8	60.0
156	GlcNAc β 1-2Gal β 1-3GalNAc α -Sp8	219.7	122.7
157	GlcNAc β 1-3(GlcNAc β 1-6)GalNAc α -Sp8	219.8	150.8
158	GlcNAc β 1-3(GlcNAc β 1-6)Gal β 1-4GlcNAc β -Sp8	74.0	19.0
159	GlcNAc β 1-3GalNAc α -Sp8	45.0	56.9
160	GlcNAc β 1-3Gal β -Sp8	70.4	30.7
161	GlcNAc β 1-3Gal β 1-3GalNAc α -Sp8	325.8	92.3

162	GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	62.3	43.3
163	GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp8	161.9	75.3
164	GlcNAc β 1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	165.9	83.8
165	GlcNAc β 1-3Gal β 1-4Glc β -Sp0	91.8	39.9
166	GlcNAc β 1-4MDPLys	182.7	81.5
167	GlcNAc β 1-4(GlcNAc β 1-6)GalNAc α -Sp8	159.7	28.4
168	GlcNAc β 1-4Gal β 1-4GlcNAc β -Sp8	59.3	54.8
169	(GlcNAc β 1-4)6 β -Sp8	465.2	132.9
170	(GlcNAc β 1-4)5 β -Sp8	388.9	141.3
171	GlcNAc β 1-4GlcNAc β 1-4GlcNAc β -Sp8	457.8	146.9
172	GlcNAc β 1-6(Gal β 1-3)GalNAc α -Sp8	190.8	64.7
173	GlcNAc β 1-6GalNAc α -Sp8	35.9	67.7
174	GlcNAc β 1-6Gal β 1-4GlcNAc β -Sp8	157.0	51.4
175	Glc α 1-4Glc β -Sp8	44.7	81.9
176	Glc α 1-4Glc α -Sp8	59.7	14.7
177	Glc α 1-6Glc α 1-6Glc β -Sp8	42.3	50.3
178	Glc β 1-4Glc β -Sp8	38.6	13.0
179	Glc β 1-6Glc β -Sp8	101.4	32.3
180	G-ol-Sp8	103.1	14.8
181	GlcA α -Sp8	348.3	225.8
182	GlcA β -Sp8	285.1	226.5
183	GlcA β 1-3Gal β -Sp8	246.0	98.7
184	GlcA β 1-6Gal β -Sp8	160.2	71.1
185	KDNa2-3Gal β 1-3GlcNAc β -Sp0	375.8	360.0
186	KDNa2-3Gal β 1-4GlcNAc β -Sp0	147.2	45.4
187	Man α 1-2Man α 1-2Man α 1-3Man α -Sp9	1134.1	254.5
188	Man α 1-2Man α 1-3(Man α 1-2Man α 1-6)Man α -Sp9	208.0	130.8
189	Man α 1-2Man α 1-3Man α -Sp9	142.4	69.9
190	Man α 1-6(Man α 1-2Man α 1-3)Man α 1-6(Man α 2Man α 1-3)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	130.1	26.3
191	Man α 1-2Man α 1-6(Man α 1-3)Man α 1-6(Man α 2Man α 2Man α 1-3)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	62.3	25.9
192	Man α 1-2Man α 1-2Man α 1-3(Man α 1-2Man α 1-3(Man α 1-2Man α 1-6)Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	104.4	82.1
193	Man α 1-3(Man α 1-6)Man α -Sp9	312.6	113.9
194	Man α 1-3(Man α 1-2Man α 1-2Man α 1-6)Man α -Sp9	365.1	219.3
195	Man α 1-6(Man α 1-3)Man α 1-6(Man α 2Man α 1-3)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	219.0	43.3
196	Man α 1-6(Man α 1-3)Man α 1-6(Man α 1-3)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	573.5	117.5
197	Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-3(Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp12	302.8	115.7
198	Man β 1-4GlcNAc β -Sp0	36.3	20.1
199	Fuc α 1-3(Gal β 1-4)GlcNAc β 1-2Man α 1-3(Fuc α 1-3(Gal β 1-4)GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp20	29817.8	1325.1
200	Neu5Ac α 2-3Gal β 1-3GalNAc α -Sp8	276.0	115.2
201	NeuAc α 2-8NeuAc α 2-8NeuAc α 2-8NeuAc α 2-3(GalNAc β 1-4)Gal β 1-4Glc β -Sp0	145.1	100.3
202	Neu5Ac α 2-8Neu5Ac α 2-8Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4Glc β -Sp0	413.8	307.5
203	Neu5Ac α 2-8Neu5Ac α 2-8Neu5Ac α 2-3Gal β 1-4Glc β -Sp0	211.6	53.8
204	Neu5Ac α 2-8Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4Glc β -Sp0	271.9	51.3
205	Neu5Ac α 2-8Neu5Ac α 2-8Neu5Ac α -Sp8	389.8	131.9
206	Neu5Ac α 2-3(6-O-Su)Gal β 1-4(Fuc α 1-3)GlcNAc β -Sp8	34863.4	1455.7
207	Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4GlcNAc β -Sp0	301.6	116.7
208	Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4GlcNAc β -Sp8	117.1	61.9
209	Neu5Ac α 2-3(GalNAc β 1-4)Gal β 1-4Glc β -Sp0	276.8	138.6
210	NeuAc α 2-3(NeuAc α 2-3Gal β 1-3GalNAc β 1-4)Gal β 1-4Glc β -Sp0	434.6	50.8
211	Neu5Ac α 2-3(Neu5Ac α 2-6)GalNAc α -Sp8	326.1	208.1
212	Neu5Ac α 2-3GalNAc α -Sp8	114.4	22.2
213	Neu5Ac α 2-3GalNAc β 1-4GlcNAc β -Sp0	82.6	67.6
214	Neu5Ac α 2-3Gal β 1-3(6OSO3)GlcNAc-Sp8	177.0	114.8
215	Neu5Ac α 2-3Gal β 1-3(Fuc α 1-4)GlcNAc β -Sp8	171.7	45.0

216	Neu5Ac α 2-3Gal β 1-3(Fuca1-4)GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β Sp0	1565.8	249.1
217	Neu5Ac α 2-3Gal β 1-3(Neu5Ac α 2-3Gal β 1-4)GlcNAc β -Sp8	357.4	127.0
218	Neu5Ac α 2-3Gal β 1-3[6OSO3]GalNAc α -Sp8	560.4	101.5
219	Neu5Ac α 2-3Gal β 1-3(Neu5Ac α 2-6)GalNAc α -Sp8	285.6	74.0
220	Neu5Ac α 2-3Gal β -Sp8	629.4	483.7
221	Neu5Ac α 2-3Gal β 1-3GalNAc β 1-3Gal α 1-4Gal β 1-4Glc β - β -Sp0	207.0	41.4
222	Neu5Ac α 2-3Gal β 1-3GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	70.9	35.5
223	Neu5Ac α 2-3Gal β 1-3GlcNAc β -Sp0	197.3	108.0
224	Neu5Ac α 2-3Gal β 1-3GlcNAc β -Sp8	154.9	86.6
225	Neu5Ac α 2-3Gal β 1-4[6OSO3]GlcNAc β -Sp8	309.3	158.8
226	Neu5Ac α 2-3Gal β 1-4(Fuca1-3)(6OSO3)GlcNAc β -Sp8	36947.0	2195.1
227	Neu5Ac α 2-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	34978.0	2173.3
228	Neu5Ac α 2-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	30564.6	2432.0
229	Neu5Ac α 2-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp8	32433.2	1831.5
230	Neu5Ac α 2-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β -Sp8	44306.4	3354.3
231	Neu5Ac α 2-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp8	40692.5	2620.9
232	Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	258.4	57.3
233	Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	283.7	128.1
234	Neu5Ac α 2-3Gal β 1-4GlcNAc β -Sp0	28.4	106.5
235	Neu5Ac α 2-3Gal β 1-4GlcNAc β -Sp8	383.4	521.5
236	Neu5Ac α 2-3Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	163.9	62.0
237	Neu5Ac α 2-3Gal β 1-4Glc β -Sp0	161.7	34.0
238	Neu5Ac α 2-3Gal β 1-4Glc β -Sp8	232.4	241.6
239	Gal β 1-4GlcNAc β 1-2Man α 1-3(Fuca1-3)(Gal β 1-4)GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp20	45.2	24.4
240	Neu5Ac α 2-6GalNAc α -Sp8	220.3	68.6
241	Neu5Ac α 2-6GalNAc β 1-4GlcNAc β -Sp0	218.5	106.9
242	Neu5Ac α 2-6Gal β 1-4[6OSO3]GlcNAc β -Sp8	775.4	202.0
243	Neu5Ac α 2-6Gal β 1-4GlcNAc β -Sp0	200.0	117.0
244	Neu5Ac α 2-6Gal β 1-4GlcNAc β -Sp8	127.0	38.3
245	Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β 1-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	17423.1	1436.2
246	Neu5Ac α 2-6Gal β 1-4GlcNAc β 1-3Gal β 1-4GlcNAc β -Sp0	82.4	44.5
247	Neu5Ac α 2-6Gal β 1-4Glc β -Sp0	101.5	51.7
248	Neu5Ac α 2-6Gal β 1-4Glc β -Sp8	132.3	60.9
249	Neu5Ac α 2-Ac α 2-6Gal β -Sp8	121.8	14.0
250	Neu5Ac α 2-8Neu5Ac α -Sp8	134.5	55.2
251	Neu5Ac α 2-8Neu5Ac α 2-Ac α 2-3Gal β 1-4Glc β -Sp0	236.7	115.3
252	Neu5Ac β 2-6GalNAc α -Sp8	129.7	83.9
253	Neu5Ac β 2-6Gal β 1-4GlcNAc β -Sp8	558.5	305.7
254	Gal β 1-4GlcNAc β 1-2Man α 1-3(Neu5Ac α 2-Ac α 2-6Gal β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc β -Sp21	174.0	40.1
255	Neu5Gc α 2-3Gal β 1-3(Fuca1-4)GlcNAc β -Sp0	206.0	31.5
256	Neu5Gc α 2-3Gal β 1-3GlcNAc β -Sp0	175.6	32.7
257	Neu5Gc α 2-3Gal β 1-4(Fuca1-3)GlcNAc β -Sp0	23519.8	570.8
258	Neu5Gc α 2-3Gal β 1-4GlcNAc β -Sp0	51.7	24.7
259	Neu5Gc α 2-3Gal β 1-4Glc β -Sp0	154.7	38.3
260	Neu5Gc α 2-6GalNAc α -Sp0	178.0	35.7
261	Neu5Gc α 2-6Gal β 1-4GlcNAc β -Sp0	204.2	260.3
262	Neu5Gc α -Sp8	269.8	99.7
263	[3OSO3]Gal β 1-4(Fuca1-3)(6OSO3)Glc-Sp0	959.8	115.2
264	[3OSO3]Gal β 1-4(Fuca1-3)Glc-Sp0	291.6	142.0
265	[3OSO3]Gal β 1-4[Fuca1-3][6OSO3]GlcNAc-Sp8	613.8	110.9
266	[3OSO3]Gal β 1-4[Fuca1-3]GlcNAc-Sp0	145.7	84.6
267	Fuca1-2[6OSO3]Gal β 1-4GlcNAc-Sp0	126.3	81.1
268	Fuca1-2Gal β 1-4[6OSO3]GlcNAc-Sp8	178.0	113.8
269	Fuca1-2[6OSO3]Gal β 1-4[6OSO3]Glc-Sp0	135.7	49.3
270	Fuca1-2-(6OSO3)-Gal β 1-4Glc-Sp0	192.5	138.5

271	Fuca1-2-Galβ1-4[6OSO3]Glc-Sp0	117.4	41.4
272	Galβ1-3(Fuca1-4)GlcNAcβ1-3Galβ1-3(Fuca1-4)GlcNAcβ-Sp0	319.9	113.3
273	Galβ1-3-(Galβ1-4GlcNAcβ1-6)GalNAc-Sp14	76.5	16.5
274	Galβ1-3(GlcNAcβ1-6)GalNAc-Sp14	274.1	85.9
275	Galβ1-3-(Neu5Acα2-3Galβ1-4GlcNAcβ1-6)GalNAc-Sp14	190.1	10.6
276	Galβ1-3GalNAc-Sp14	159.7	97.2
277	Galβ1-3GlcNAcβ1-3Galβ1-3GlcNAcβ-Sp0	173.3	82.0
278	Galβ1-4[Fuca1-3][6OSO3]GlcNAc-Sp0	22650.6	1308.3
279	Galβ1-4[Fuca1-3][6OSO3]Glc-Sp0	115.8	34.4
280	Galβ1-4(Fuca1-3)GlcNAcβ1-3Galβ1-3(Fuca1-4)GlcNAcβ-Sp0	18517.7	2530.1
281	Galβ1-4GlcNAcβ1-3Galβ1-3GlcNAcβ-Sp0	298.9	191.5
282	Neu5Acα2-3Galβ1-3GlcNAcβ1-3Galβ1-3GlcNAcβ-Sp0	808.2	772.3
283	Neu5Acα2-3Galβ1-4GlcNAcβ1-3Galβ1-3GlcNAcβ-Sp0	382.7	193.3
284	[3OSO3]Galβ1-4[6OSO3]GlcNAcβ-Sp0	345.4	367.1
285	[3OSO3][4OSO3]Galβ1-4GlcNAcβ-SpSp0	309.4	125.7
286	[6OSO3]Galβ1-4[6OSO3]GlcNAcβ-Sp0	814.5	432.7
287	6-H2PO3Glcβ-Sp10	122.8	15.9
288	Galα1-3(Fuca1-2)Galα-Sp18	144.9	55.3
289	Galα1-3GalNAcα-Sp16	186.0	98.6
290	Galβ1-3GalNAcα-Sp16	80.4	51.8
291	Galβ1-3(Neu5Acα2-3Galβ1-4(Fuca1-3)GlcNAcβ1-6)GalNAc-Sp14	33773.1	1891.6
292	Galβ1-3Galβ1-4GlcNAcβ-Sp8	118.8	47.1
293	Galβ1-4GlcNAcβ1-2Manα1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	244.1	114.7
294	Galβ1-4GlcNAcβ1-3(Galβ1-4GlcNAcβ1-6)Galβ1-4GlcNAc-Sp0	337.4	323.3
295	Galβ1-4GlcNAcβ1-3(GlcNAcβ1-6)Galβ1-4GlcNAc-Sp0	95.9	57.6
296	Galβ1-4GlcNAcα1-6Galβ1-4GlcNAcβ-Sp0	304.3	96.3
297	Galβ1-4GlcNAcβ1-6Galβ1-4GlcNAcβ-Sp0	134.4	56.2
298	GalNAcα-Sp15	377.3	413.0
299	GalNAcα1-3(Fuca1-2)Galβ-Sp18	126.3	54.6
300	GalNAcβ1-3Galβ-Sp8	288.1	123.9
301	GlcAβ1-3GlcNAcβ-Sp8	150.6	84.2
302	GlcNAcβ1-2Manα1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	217.3	114.6
303	GlcNAcβ1-2Manα1-3(GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	78.9	47.4
304	GlcNAcβ1-3Man-Sp10	22.9	32.2
305	GlcNAcβ1-4GlcNAcβ-Sp10	50.8	29.5
306	GlcNAcβ1-4GlcNAcβ-Sp12	84.1	14.3
307	HOOC(CH3)CH-3-O-GlcNAcβ1-4GlcNAcβ-Sp10	252.8	143.8
308	Manα1-3(Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	494.0	213.4
309	Manα1-6Manβ-Sp10	66.6	59.5
310	Manα1-6(Manα1-3)Manα1-6(Manα1-3)Manβ-Sp10	467.6	210.1
311	Manα1-2Manα1-2Manα1-3(Manα1-2Manα1-6(Manα1-3)Manα1-6)Manα-Sp9	236.2	69.0
312	Manα1-2Manα1-2Manα1-3(Manα1-2Manα1-6(Manα1-2Manα1-3)Manα1-6)Manα-Sp9	186.4	79.4
313	Neu5Acα2-3Galβ1-3(Neu5Acα2-3Galβ1-4GlcNAcβ1-6)GalNAc-Sp14	270.5	79.9
314	Neu5Acα2-3Galβ1-3(Neu5Acα2-6)GalNAc-Sp14	17670.9	3980.3
315	Neu5Acα2-3Galβ1-3GalNAc-Sp14	1893.9	192.9
316	Neu5Acα2-3Galβ1-4GlcNAcβ1-2Manα1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	189.8	63.7
317	Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	227.7	110.5
318	Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	202.1	79.0
319	Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-N(LT)AVL	720.7	102.5
320	Fuca1-2Galβ1-3GalNAcα-Sp14	169.4	35.8
321	Galβ1-3(Neu5Acα2-6)GalNAcα-Sp14	1132.5	238.3
322	Galβ1-4GlcNAcβ1-3GalNAc-Sp14	95.5	27.3
323	NeuAc(9Ac) α2-3Galβ1-4GlcNAcβ-Sp0	66.2	41.8
324	NeuAc(9Ac) α2-3Galβ1-3GlcNAcβ-Sp0	87.7	31.3

325	NeuAcα2-6Galβ1-4GlcNAcβ1-3Galβ1-3GlcNAcβ-Sp0	174.3	83.6
326	NeuAcα2-3Galβ1-3(Fuca1-4)GlcNAcβ1-3Galβ1-3(Fuca1-4)GlcNAcβ-Sp0	2901.9	454.3
327	NeuAcα2-6Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0	334.1	115.7
328	Galα1-4Galβ1-4GlcNAcβ1-3Galβ1-4Glcβ-Sp0	262.5	233.3
329	GalNAcβ1-3Galα1-4Galβ1-4GlcNAcβ1-3Galβ1-4Glcβ-Sp0	37.4	36.2
330	GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0	249.0	40.8
331	GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0	579.5	199.8
332	(Neu5Acα2-3-Galβ1-3)((Neu5Acα2-3-Galβ1-4(Fuca1-3))GlcNAcβ1-6)GalNAc-Sp14	34815.0	2170.5
333	GlcNAcα1-4Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0	255.5	90.3
334	GlcNAcα1-4Galβ1-4GlcNAcβ-Sp0	184.3	75.1
335	GlcNAcα1-4Galβ1-3GlcNAcβ-Sp0	321.8	51.0
336	GlcNAcα1-4Galβ1-4GlcNAcβ1-3Galβ1-4Glcβ-Sp0	265.3	145.1
337	GlcNAcα1-4Galβ1-4GlcNAcβ1-3Galβ1-4(Fuca1-3)GlcNAcβ1-3Galβ1-4(Fuca1-3)GlcNAcβ-Sp0	20406.5	1020.1
338	GlcNAcα1-4Galβ1-4GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0	1060.7	214.8
339	GlcNAcα1-4Galβ1-3GalNAc-Sp14	286.7	136.6
340	Manα1-3(Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAc-Sp12	87.1	37.1
341	Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3(Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAc-Sp12	131.2	57.2
342	Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-6Manβ1-4GlcNAcβ1-4GlcNAc-Sp12	92.0	58.1
343	Neu5Acα2-6Galβ1-4GlcNAcβ1-2Manα1-3Manβ1-4GlcNAcβ1-4GlcNAc-Sp12	244.8	166.6
344	Galβ1-4GlcNAcβ1-2Manα1-3Manβ1-4GlcNAcβ1-4GlcNAc-Sp12	268.8	101.8
345	Galβ1-4GlcNAcβ1-2Manα1-6Manβ1-4GlcNAcβ1-4GlcNAc-Sp12	212.6	66.7
346	Galβ1-4GlcNAcβ1-2Manα1-3(Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	127.1	46.6
347	GlcNAcβ1-2Manα1-3(GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4(Fuca1-6)GlcNAcβ-Sp22	353.0	68.3
348	Galβ1-4GlcNAcβ1-2Manα1-3(Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4(Fuca1-6)GlcNAcβ-Sp22	264.4	94.3
349	Galβ1-3GlcNAcβ1-2Manα1-3(Galβ1-3GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4(Fuca1-6)GlcNAcβ-Sp22	170.4	104.0
350	Galβ1-3(Fuca1-4)GlcNAcβ1-2Manα1-3[Galβ1-3(Fuca1-4)GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp19	3266.8	264.2
351	(6SO3)GlcNAcβ1-3Galβ1-4GlcNAcβ-Sp0	144.4	155.9
352	KDNa2-3Galβ1-4(Fuca1-3)GlcNAc-Sp0	455.8	164.3
353	KDNa2-6Galβ1-4GlcNAc-Sp0	172.2	109.6
354	KDNa2-3Galβ1-4Glc-Sp0	155.2	161.9
355	KDNa2-3Galβ1-3GalNAcα-Sp14	1067.3	198.9
356	Fuca1-2Galβ1-3GlcNAcβ1-2Manα1-3(Fuca1-2Galβ1-3GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	356.3	167.9
357	Fuca1-2Galβ1-4GlcNAcβ1-2Manα1-3(Fuca1-2Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	56.3	92.5
358	Fuca1-2Galβ1-4(Fuca1-3)GlcNAcβ1-2Manα1-3[Fuca1-2Galβ1-4(Fuca1-3)GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	2082.7	93.4
359	Galα1-3Galβ1-4GlcNAcβ1-2Manα1-3(Galα1-3Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	207.4	25.6
360	Manα1-3(Galβ1-4GlcNAcβ1-2Manα1-6)Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp12	94.4	84.2
361	Galβ1-3(Fuca1-4)GlcNAcβ1-2Manα1-3[Galβ1-3(Fuca1-4)GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4(Fuca1-6)GlcNAcβ-Sp22	893.6	341.1
362	Neu5Acα2-6GlcNAcβ1-4GlcNAc-Sp21	131.6	61.5
363	Neu5Acα2-6GlcNAcβ1-4GlcNAcβ1-4GlcNAc-Sp21	94.7	33.5
364	Fuca1-2Galβ1-3GlcNAcβ1-3[Galβ1-4(Fuca1-3)GlcNAcβ1-6]Galβ1-4Glc-Sp21	10810.2	673.9
365	Galβ1-4GlcNAcβ1-2(Galβ1-4GlcNAcβ1-4)Manα1-3[Galβ1-4GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAc-Sp21	288.6	118.4
366	GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-2Manα1-3[GalNAcα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	280.8	59.3
367	Galα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-2Manα1-3[Galα1-3(Fuca1-2)Galβ1-4GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	291.4	147.3
368	Galα1-3Galβ1-4(Fuca1-3)GlcNAcβ1-2Manα1-3[Galα1-3Galβ1-4(Fuca1-3)GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	36390.2	567.2
369	GalNAcα1-3(Fuca1-2)Galβ1-3GlcNAcβ1-2Manα1-3[GalNAcα1-3(Fuca1-2)Galβ1-3GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	421.1	129.6
370	Galα1-3(Fuca1-2)Galβ1-3GlcNAcβ1-2Manα1-3[Galα1-3(Fuca1-2)Galβ1-3GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp20	423.2	87.9
371	Fuca1-2Galβ1-3(Fuca1-4)GlcNAcβ1-2Manα1-3[Fuca1-2Galβ1-3(Fuca1-4)GlcNAcβ1-2Manα1-6]Manβ1-4GlcNAcβ1-4GlcNAcβ-Sp19	1853.6	480.9
372	NeuAcα2-3Galβ1-4GlcNAcβ1-3GalNAc-Sp14	604.0	284.8
373	NeuAcα2-6Galβ1-4GlcNAcβ1-3GalNAc-Sp14	5153.4	733.3

374	Fuc α 1-3[NeuAc α 2-3Gal β 1-4]GlcNAc β 1-3GalNAc-Sp14	2469.4	472.5
375	GalNAc β 1-4GlcNAc β 1-2Man α 1-6(GalNAc β 1-4GlcNAc β 1-2Man α 1-6)Man β 1-4GlcNAc β 1-4GlcNAc-Sp12	221.0	87.4
376	Gal β 1-3GalNAc α 1-3(Fuc α 1-2)Gal β 1-4Glc-Sp14	328.6	244.0
377	Gal β 1-3GalNAc α 1-3(Fuc α 1-2)Gal β 1-4GlcNAc-Sp14	346.2	66.3

* Spacers:

Sp0	CH ₂ CH ₂ NH ₂
Sp8	CH ₂ CH ₂ CH ₂ NH ₂
Sp9	CH ₂ CH ₂ CH ₂ CH ₂ CH ₂ NH ₂
Sp10	NHCOCH ₂ NH
Sp11	OCH ₂ C ₆ H ₄ -p-NHCOCH ₂ NH
Sp12	Asparagine (N)
Sp13	Glycine (G)
Sp14	Threonine (T)
Sp15	Serine (S)
Sp16	PNP (OC ₆ H ₄ NH ₂)
Sp17	OCH ₂ C ₆ H ₄ NH ₂
Sp18	O(CH ₂) ₃ NHCO(CH ₂) ₅ NH ₂
Sp19	GluAsn (EN) or AsnLys (NK)
Sp20	GlyGluAsnTrp (GENR)
Sp21	N(CH ₃)-O-(CH ₂) ₂ -NH ₂
Sp22	AsnSerThr (NST)
Sp23	(OCH ₂ CH ₂) ₆ NH ₂
MDPLys	Mur-L-Ala-D-iGln β -(CH ₂) ₄ NH ₂