

Supporting Table 1. Binding of the MGL variants to the glycan array developed by the Consortium of Functional Glycomics.

Chart Number		MGL <sup>short</sup> 200 µg/ml				MGL <sup>short</sup> H259T 200 µg/ml				MGL <sup>long</sup> 200 µg/ml			
		Average RFU	StDev	Average RFU	StDev	Average RFU	StDev	Average RFU	StDev	Average RFU	StDev	Average RFU	StDev
1	Gala-Sp8	14	14	9	8	13	5	6	4	12	11	2	9
2	Glca-Sp8	25	19	18	8	20	14	8	9	22	15	17	7
3	Mana-Sp8	270	140	2440	3057	11	10	9	9	1094	818	713	848
4	GalNAca-Sp8	8569	2874	31679	2776	7623	4869	19927	3316	9656	7400	1599	75
5	GalNAca-Sp15	9448	890	29656	2480	520	146	247	33	15202	3336	3650	323
6	Fuca-Sp8	113	23	41	7	33	10	21	4	94	16	20	4
7	Fuca-Sp9	52	38	-180	127	17	10	4	6	-25	105	-3	4
8	Rhaa-Sp8	103	30	18	8	31	18	12	5	81	8	13	8
9	Neu5Aca-Sp8	16	14	12	7	5	6	15	12	13	18	10	6
10	Neu5Aca-Sp11	11	6	26	13	16	9	13	7	14	10	7	5
11	Neu5Acb-Sp8	199	12	15	12	49	20	18	2	248	12	16	4
12	Galb-Sp8	62	10	20	3	21	17	10	6	62	12	14	3
13	Glc-Sp8	47	8	-58	60	14	5	6	2	25	13	19	4
14	Manb-Sp8	70	32	20	8	22	10	6	3	41	35	7	6
15	GalNAcb-Sp8	14651	2415	40039	2069	893	79	353	36	22495	5252	4488	124
16	GlcNAcb-Sp0	80	25	43	27	13	5	21	18	76	17	16	8
17	GlcNAcb-Sp8	-2	7	-8	24	15	11	4	6	-6	12	3	23
18	GlcN(Gc)b-Sp8	-61	87	-6206	7358	-21	14	6	7	-362	497	-93	56
19	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-3)GalNAca-Sp8	-25	10	-65	22	4	3	3	3	-26	6	-6	5
20	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-3)GalNAca-Sp14	260	72	186	25	42	14	11	2	187	21	86	18
21	GlcNAcb1-6(GlcNAcb1-4)(GlcNAcb1-3)GlcNAcb-Sp8	24	11	450	752	19	11	6	6	21	13	9	9
22	6S(3S)Galb1-4(6S)GlcNAcb-Sp0	44	11	6	5	36	15	18	10	38	8	10	4
23	6S(3S)Galb1-4GlcNAcb-Sp0	35	11	-9	54	20	13	17	8	25	7	16	10
24	(3S)Galb1-4(Fuca1-3)(6S)Glc-Sp0	87	21	22	15	16	8	6	4	34	10	25	10
25	(3S)Galb1-4Glc-Sp8	23	6	106	159	20	10	7	6	27	10	18	9
26	(3S)Galb1-4(6S)Glc-Sp0	8	3	9	4	3	5	11	7	10	5	7	5
27	(3S)Galb1-4(6S)Glc-Sp8	25	7	17	13	22	5	9	2	25	9	27	5
28	(3S)Galb1-3(Fuca1-4)GlcNAcb-Sp8	21	8	26	6	15	8	25	13	33	19	16	8
29	(3S)Galb1-3GalNAca-Sp8	6	8	7	3	5	3	6	2	8	2	2	6
30	(3S)Galb1-3GlcNAcb-Sp0	-201	51	-352	181	-8	6	3	11	-157	31	-100	22
31	(3S)Galb1-3GlcNAcb-Sp8	-1746	209	-10744	2336	-47	13	-66	31	-3446	272	-1443	113
32	(3S)Galb1-4(Fuca1-3)GlcNAcb-Sp0	36	8	16	7	28	15	7	5	19	14	15	2
33	(3S)Galb1-4(Fuca1-3)GlcNAcb-Sp8	10	4	15	5	18	10	8	4	20	9	15	9
34	(3S)Galb1-4(6S)GlcNAcb-Sp0	10	4	-36	27	1	3	-1	1	-15	13	13	19
35	(3S)Galb1-4(6S)GlcNAcb-Sp8	19	7	10	5	14	5	10	2	15	9	18	6
36	(3S)Galb1-4GlcNAcb-Sp0	20	6	18	7	12	5	10	10	29	19	11	4
37	(3S)Galb1-4GlcNAcb-Sp8	15	14	11	9	7	7	3	6	20	4	11	8
38	(3S)Galb-Sp8	20	8	12	6	11	10	15	9	20	8	12	7
39	(6S)(4S)Galb1-4GlcNAcb-Sp0	5	7	-27	62	5	3	2	4	23	19	0	5
40	(4S)Galb1-4GlcNAcb-Sp8	13	3	6	6	5	6	6	6	17	8	7	3
41	(6P)Mana-Sp8	14	14	13	2	8	7	9	4	19	6	11	4
42	(6S)Galb1-4Glc-Sp0	38	5	17	9	10	5	7	4	30	10	20	12
43	(6S)Galb1-4Glc-Sp8	42	13	19	12	14	21	9	9	30	10	14	5
44	(6S)Galb1-4GlcNAcb-Sp8	0	8	1	3	14	8	15	7	18	15	16	8
45	(6S)Galb1-4(6S)Glc-Sp8	52	14	217	263	11	6	5	6	28	15	-1	1
46	Neu5Aca2-3(6S)Galb1-4GlcNAcb-Sp8	28	10	9	3	19	19	10	2	15	11	10	7
47	(6S)GlcNAcb-Sp8	30	5	5	8	3	2	6	1	4	19	10	6
48	Neu5,9Aca8-Sp8	32	11	3	6	7	8	17	9	20	7	6	4
49	Neu5,9Aca2a2-6Galb1-4GlcNAcb-Sp8	9	10	177	338	18	3	6	3	20	11	8	7
50	Mana1-6(Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	26	17	5	7	8	4	7	2	13	9	6	5
51	Mana1-6(Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp13	-10	11	-5	9	10	7	3	5	5	7	-6	3
52	GlcNAcb1-2Mana1-6(GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	7	1	2	5	15	5	9	8	9	3	16	8
53	GlcNAcb1-2Mana1-6(GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp13	22	9	15	12	18	16	13	11	9	2	11	8
54	Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	31	27	167	325	8	4	2	5	29	21	6	5
55	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	18	16	6	9	12	6	2	4	12	3	4	2
56	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Man-a1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	6	14	10	10	29	22	10	7	10	12	8	3
57	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp24	24	18	20	10	1	2	11	5	10	5	12	6

58	Fuca1-2Galb1-3GalNAcb1-3Gala-Sp9	319	21	42	11	23	11	5	4	287	19	29	19
59	Fuca1-2Galb1-3GalNAcb1-3Gala1-4Galb1-4Glc-Sp9	21	10	6	7	3	5	3	3	3	4	0	2
60	Fuca1-2Galb1-3(Fuca1-4)GlcNAcb-Sp8	18	9	18	14	13	4	12	4	15	6	11	6
61	Fuca1-2Galb1-3GalNAca-Sp8	29	13	3	2	16	11	19	7	5	16	8	3
62	Fuca1-2Galb1-3GalNAca-Sp14	19	8	13	1	9	5	4	8	2	5	19	8
63	Fuca1-2Galb1-3GalNAcb1-4(Neu5Aca2-3)Galb1-4Glc-Sp0	6356	1112	2134	249	16	8	8	4	3276	579	765	39
64	Fuca1-2Galb1-3GalNAcb1-4(Neu5Aca2-3)Galb1-4Glc-Sp9	12	9	10	3	11	12	5	8	9	5	5	6
65	Fuca1-2Galb1-3GlcNAcb1-3Galb1-4Glc-Sp8	25	6	15	13	9	2	8	5	15	14	8	4
66	Fuca1-2Galb1-3GlcNAcb1-3Galb1-4Glc-Sp10	30	12	21	7	11	9	6	6	42	15	18	16
67	Fuca1-2Galb1-3GlcNAcb-Sp0	23	10	17	12	33	19	10	4	20	7	10	6
68	Fuca1-2Galb1-3GlcNAcb-Sp8	18	3	502	827	11	7	6	10	3	9	19	9
69	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	67	8	35	6	24	13	7	2	41	13	14	7
70	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb1-4(Fuca1-3)GlcNAcb-Sp0	95	20	55	18	13	8	14	5	76	7	33	13
71	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb-Sp0	42	4	18	16	26	7	12	6	21	9	13	9
72	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb-Sp8	10	7	20	15	-4	3	13	6	8	2	9	3
73	Fuca1-2Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	6	4	-8	26	1	3	4	2	10	9	7	7
74	Fuca1-2Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	11	9	12	9	9	5	6	3	23	9	8	1
75	Fuca1-2Galb1-4GlcNAcb-Sp0	18	11	11	9	7	4	6	6	14	9	7	6
76	Fuca1-2Galb1-4GlcNAcb-Sp8	6	9	9	6	16	14	6	7	25	17	4	2
77	Fuca1-2Galb1-4Glc-Sp0	51	9	27	14	12	16	10	5	60	15	0	7
78	Fuca1-2Galb-Sp8	26	9	15	10	7	1	8	4	32	10	15	11
79	Fuca1-3GlcNAcb-Sp8	27	15	4	3	7	5	11	7	17	2	5	3
80	Fuca1-4GlcNAcb-Sp8	101	54	15	9	20	8	11	5	116	15	14	7
81	Fucb1-3GlcNAcb-Sp8	6	11	9	5	18	11	7	4	26	14	15	7
82	GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb-Sp0	2108	293	2776	163	17	8	9	6	7254	694	425	60
83	GalNAca1-3(Fuca1-2)Galb1-4(Fuca1-3)GlcNAcb-Sp0	857	97	514	34	13	15	7	6	542	93	34	14
84	(3S)Galb1-4(Fuca1-3)Glc-Sp0	24	2	9	8	29	22	10	8	23	7	7	7
85	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb-Sp0	6922	4671	2076	207	2	2	-4	7	1801	596	196	59
86	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb-Sp8	10001	2892	6650	600	10	3	6	10	9975	2532	942	81
87	GalNAca1-3(Fuca1-2)Galb1-4Glc-Sp0	16108	2026	2516	177	12	5	10	3	1961	400	184	8
88	GlcNAcb1-3Galb1-3GalNAca-Sp8	196	32	136	27	10	3	18	5	95	16	38	10
89	GalNAca1-3(Fuca1-2)Galb-Sp8	22823	1238	2787	305	27	4	14	5	4298	1108	257	19
90	GalNAca1-3(Fuca1-2)Galb-Sp18	11531	2251	9455	710	16	11	12	1	3589	340	1669	892
91	GalNAca1-3GalNAcb-Sp8	17180	1937	5006	530	13	4	12	5	5056	268	369	30
92	GalNAca1-3Galb-Sp8	14580	2748	36704	3010	2521	203	474	26	16095	4289	6144	368
93	GalNAca1-4(Fuca1-2)Galb1-4GlcNAcb-Sp8	37389	6950	43633	5609	11066	3362	9933	822	9965	3732	10604	1279
94	GalNAcb1-3GalNAca-Sp8	19408	902	13150	783	28	17	2	4	15086	1128	3741	90
95	GalNAcb1-3(Fuca1-2)Galb-Sp8	27117	1435	27701	3365	17307	2835	7847	1154	13612	1812	15192	3121
96	GalNAcb1-3Gala1-4Galb1-4GlcNAcb-Sp0	3217	5696	4991	9331	1378	2722	118	233	5239	8922	1578	2605
97	GalNAcb1-4(Fuca1-3)GlcNAcb-Sp0	6720	481	24282	826	933	102	58	10	17936	1350	4259	341
98	GalNAcb1-4GlcNAcb-Sp0	4610	477	32293	5249	5133	862	406	21	9918	921	2480	479
99	GalNAcb1-4GlcNAcb-Sp8	404	761	12524	8013	4137	935	-2304	2847	6901	1910	634	616
100	Gala1-2Galb-Sp8	5	2	44	63	11	14	2	2	16	4	-1	7
101	Gala1-3(Fuca1-2)Galb1-3GlcNAcb-Sp0	22	6	41	37	11	10	3	5	21	21	6	8
102	Gala1-3(Fuca1-2)Galb1-3GlcNAcb-Sp8	19	2	25	4	22	7	16	4	30	8	14	9
103	Gala1-3(Fuca1-2)Galb1-4(Fuca1-3)GlcNAcb-Sp0	-174	66	-3378	1066	1	6	-2	4	-844	158	-139	55
104	Gala1-3(Fuca1-2)Galb1-4(Fuca1-3)GlcNAcb-Sp8	15	6	17	10	19	11	9	5	32	3	17	2
105	Gala1-3(Fuca1-2)Galb1-4GlcNAcb-Sp0	22	9	27	14	7	5	7	3	18	8	6	10
106	Gala1-3(Fuca1-2)Galb1-4Glc-Sp0	34	13	18	4	14	5	7	4	56	9	12	4
107	Gala1-3(Fuca1-2)Galb-Sp8	7	10	15	7	17	10	11	6	12	8	8	9
108	Gala1-3(Fuca1-2)Galb-Sp18	12	11	11	11	12	4	10	4	8	9	8	5
109	Gala1-4(Gala1-3)Galb1-4GlcNAcb-Sp8	53	19	13	4	19	9	24	7	20	12	36	5
110	Gala1-3GalNAca-Sp8	1010	269	2600	665	62	16	20	1	1990	349	351	13
111	Gala1-3GalNAca-Sp16	9	4	2	4	4	1	7	3	-1	4	6	1
112	Gala1-3GalNAcb-Sp8	12	5	2	6	0	4	3	6	4	7	0	1
113	Gala1-3Galb1-4(Fuca1-3)GlcNAcb-Sp8	15	7	-3	2	10	8	-1	2	10	12	-3	5
114	Gala1-3Galb1-3GlcNAcb-Sp0	102	25	9	3	19	5	4	3	39	18	5	5
115	Gala1-3Galb1-4GlcNAcb-Sp8	15	4	30	36	11	11	7	7	5	3	3	5
116	Gala1-3Galb1-4Glc-Sp0	13	7	13	11	6	5	15	4	7	2	19	2
117	Gala1-3Galb1-4Glc-Sp10	17	8	880	597	4	4	15	8	16	5	13	8
118	Gala1-3Galb-Sp8	26	8	22	13	6	1	8	4	29	27	18	11
119	Gala1-4(Fuca1-2)Galb1-4GlcNAcb-Sp8	13	14	24	23	17	8	24	14	23	3	15	10
120	Gala1-4Galb1-4GlcNAcb-Sp0	20	9	19	15	22	11	16	7	23	8	14	7
121	Gala1-4Galb1-4GlcNAcb-Sp8	47	17	32	12	9	5	29	9	57	15	28	11
122	Gala1-4Galb1-4Glc-Sp0	627	510	11456	11488	85	41	28	20	2795	1896	439	236
123	Gala1-4GlcNAcb-Sp8	-2	4	0	12	-9	5	4	10	-9	5	3	4
124	Gala1-6Glc-Sp8	17	13	41	43	2	5	1	3	19	14	1	1

125	Galb1-2Galb-Sp8	-4	20	4	46	5	8	3	14	-40	140	-2	23
126	Galb1-3(Fuca1-4)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	7	3	-1	6	9	10	12	5	16	10	2	4
127	Galb1-3GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	9	5	11	7	9	3	2	5	14	7	4	9
128	Galb1-3(Fuca1-4)GlcNAcb-Sp0	12	15	0	6	0	2	-3	2	-3	4	0	7
129	Galb1-3(Fuca1-4)GlcNAcb-Sp8	60	6	120	85	9	2	10	10	118	16	33	8
130	Fuca1-4(Galb1-3)GlcNAcb-Sp8	50	16	81	31	4	12	7	7	24	15	12	5
131	Galb1-4GlcNAcb1-6GalNAca-Sp8	12699	751	54398	2348	5506	2778	15256	747	16021	733	10708	1099
132	Galb1-4GlcNAcb1-6GalNAca-Sp14	22910	1291	25374	2409	5119	333	1248	29	11094	1577	9135	1342
133	GlcNAcb1-6(Galb1-3)GalNAca-Sp8	82	19	104	53	52	54	25	19	155	45	109	97
134	GlcNAcb1-6(Galb1-3)GalNAca-Sp14	21	4	4	5	2	8	6	6	15	8	7	6
135	Neu5Aca2-6(Galb1-3)GalNAca-Sp8	5	12	-95	126	-3	6	3	2	5	7	3	7
136	Neu5Aca2-6(Galb1-3)GalNAca-Sp14	58	26	13	11	8	10	1	2	24	7	15	4
137	Neu5Acb2-6(Galb1-3)GalNAca-Sp8	12	3	8	2	11	11	10	7	6	4	4	3
138	Neu5Aca2-6(Galb1-3)GlcNAcb1-4Galb1-4Glc-Sp10	-2	29	-15	5	2	2	9	1	-30	20	1	9
139	Galb1-3GalNAca-Sp8	10	8	-25	11	6	8	2	5	5	5	-2	6
140	Galb1-3GalNAca-Sp14	33	9	98	107	10	5	10	8	18	15	12	6
141	Galb1-3GalNAca-Sp16	-34	7	-56	18	10	10	8	7	-12	11	-19	4
142	Galb1-3GalNAcb-Sp8	20	18	11	7	5	5	-1	3	22	12	12	6
143	Galb1-3GalNAcb1-3Gal1-4Galb1-4Glc-Sp0	1311	89	9328	269	23	18	25	3	6109	191	1122	157
144	Galb1-3GalNAcb1-4(Neu5Aca2-3)Galb1-4Glc-Sp0	4189	151	4760	145	69	17	4	7	6822	1017	1188	86
145	Galb1-3GalNAcb1-4Galb1-4Glc-Sp8	-1231	880	-573	459	18	9	13	18	-28	84	-66	45
146	Galb1-3Galb-Sp8	-200	72	-34	28	13	15	11	7	-36	16	-19	14
147	Galb1-3GlcNAcb1-3Galb1-4GlcNAcb-Sp0	-51	7	-56	10	0	7	11	9	-31	4	-16	9
148	Galb1-3GlcNAcb1-3Galb1-4Glc-Sp10	1	8	6	4	10	13	2	2	12	11	5	7
149	Galb1-3GlcNAcb-Sp0	16	7	21	12	6	8	10	3	8	7	14	4
150	Galb1-3GlcNAcb-Sp8	19	13	16	11	9	8	12	11	7	6	7	12
151	Galb1-4(Fuca1-3)GlcNAcb-Sp0	10	6	16	3	11	7	15	8	14	9	1	3
152	Galb1-4(Fuca1-3)GlcNAcb-Sp8	18	6	4	2	7	4	5	3	20	12	13	13
153	Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	47	19	15	7	22	17	23	12	41	16	12	5
154	Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	6	19	-33	17	9	4	12	10	-15	17	-2	7
155	Galb1-4(6S)Glc-Sp0	59	7	13	10	15	6	14	15	45	18	18	19
156	Galb1-4(6S)Glc-Sp8	-45	30	-212	92	5	15	31	25	-27	61	10	13
157	Galb1-4GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb-Sp8	16	8	7	11	5	2	4	2	10	4	7	8
158	Galb1-4GalNAcb1-3(Fuca1-2)Galb1-4GlcNAcb-Sp8	49	18	46	14	2	8	9	4	52	21	8	8
159	Galb1-4GlcNAcb1-3GalNAca-Sp8	30	8	-31	48	11	14	3	5	12	4	10	8
160	Galb1-4GlcNAcb1-3GalNAca-Sp14	11	4	9	9	7	4	3	2	27	5	13	6
161	Galb1-4GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	116	15	-50	96	10	6	5	4	54	6	9	4
162	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	29	14	23	17	10	10	7	3	8	11	4	3
163	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	13	4	-23	57	16	16	-2	3	10	8	7	7
164	Galb1-4GlcNAcb1-3Galb1-4Glc-Sp0	7	3	8	6	10	3	4	5	25	6	15	12
165	Galb1-4GlcNAcb1-3Galb1-4Glc-Sp8	13	13	18	32	32	22	11	11	34	16	11	11
166	Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp8	129	12	507	13	8	5	13	14	250	14	62	2
167	Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp14	27	14	10	9	12	18	11	9	18	8	20	9
168	Galb1-4GlcNAcb-Sp0	29	29	8	15	5	3	3	4	9	17	29	39
169	Galb1-4GlcNAcb-Sp8	5	5	27	28	2	3	7	8	12	7	8	4
170	Galb1-4GlcNAcb-Sp23	1	7	11	11	7	4	4	3	1	3	5	4
171	Galb1-4Glc-Sp0	10	10	9	2	3	3	15	5	19	17	5	9
172	Galb1-4Glc-Sp8	7	5	18	6	7	6	5	12	12	5	6	8
173	GlcNAca1-3Galb1-4GlcNAcb-Sp8	7	4	-5	6	0	6	8	5	8	7	8	5
174	GlcNAca1-6Galb1-4GlcNAcb-Sp8	8	8	144	254	17	10	13	10	14	6	12	4
175	GlcNAcb1-2Galb1-3GalNAca-Sp8	8	4	15	8	17	5	19	10	16	9	7	3
176	GlcNAcb1-6(GlcNAcb1-3)GalNAca-Sp8	16	7	14	2	14	11	10	5	6	3	5	1
177	GlcNAcb1-6(GlcNAcb1-3)GalNAca-Sp14	24	9	18	4	7	6	5	2	31	23	23	13
178	GlcNAcb1-6(GlcNAcb1-3)Galb1-4GlcNAcb-Sp8	13	10	-13	48	9	2	11	5	16	12	5	6
179	GlcNAcb1-3GalNAca-Sp8	41	23	53	29	45	23	86	54	136	18	178	15
180	GlcNAcb1-3GalNAca-Sp14	13	5	7	8	4	5	7	6	12	15	-2	4
181	GlcNAcb1-3Galb-Sp8	2	27	-317	340	0	11	3	2	-37	19	5	11
182	GlcNAcb1-3Galb1-4GlcNAcb-Sp0	-143	17	-1274	370	16	8	3	4	-72	38	-9	3
183	GlcNAcb1-3Galb1-4GlcNAcb-Sp8	-104	33	-197	53	5	4	4	7	-62	13	-58	15
184	GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	13	5	9	10	5	4	4	5	8	8	7	2
185	GlcNAcb1-3Galb1-4Glc-Sp0	50	24	12	7	14	5	7	1	28	10	7	4
186	GlcNAcb1-4-MDPLys	11	4	-256	60	7	4	5	6	28	16	9	4
187	GlcNAcb1-6(GlcNAcb1-4)GalNAca-Sp8	-293	186	-52	52	-6	4	8	8	-97	77	-2	3
188	GlcNAcb1-4Galb1-4GlcNAcb-Sp8	17	8	14	7	5	3	7	5	14	6	17	11
189	GlcNAcb1-4GlcNAcb1-4GlcNAcb1-4GlcNAcb1-4GlcNAcb1-4GlcNAcb1-Sp8	15	3	6	2	2	9	8	8	15	10	13	14
190	GlcNAcb1-4GlcNAcb1-4GlcNAcb1-4GlcNAcb1-4GlcNAcb1-Sp8	12	12	13	8	8	7	2	2	10	11	8	8
191	GlcNAcb1-4GlcNAcb1-4GlcNAcb-Sp8	-6	8	6	8	6	5	6	3	-2	4	1	4

192	GlcNAcb1-6GalNAca-Sp8	3020	329	25209	6150	3055	233	10133	3144	11728	2440	2038	1056
193	GlcNAcb1-6GalNAca-Sp14	8688	720	32628	3008	13573	4066	13930	666	22356	5427	6000	206
194	GlcNAcb1-6Galb1-4GlcNAcb-Sp8	22	11	7	5	14	3	0	7	35	7	33	12
195	Glc1-4Glc-Sp8	19	9	24	10	8	6	16	5	58	38	23	16
196	Glc1-4Glc-Sp8	7	17	8	7	2	4	5	5	3	3	3	2
197	Glc1-6Glc1-6Glc-Sp8	-11	13	1	2	6	7	5	9	2	5	6	4
198	Glc1-4Glc-Sp8	-1	8	9	3	-1	5	6	7	17	16	6	3
199	Glc1-6Glc-Sp8	6	6	14	3	21	6	6	4	12	9	1	4
200	G-ol-Sp8	28	9	-4	34	13	7	7	2	20	6	8	7
201	GlcAa-Sp8	53	39	59	41	14	2	10	3	64	49	8	10
202	GlcAb-Sp8	26	8	20	10	9	4	7	5	32	8	12	4
203	GlcAb1-3Galb-Sp8	35	24	15	9	14	7	21	19	14	4	10	9
204	GlcAb1-6Galb-Sp8	23	13	4	11	12	2	9	8	30	11	10	5
205	KDNa2-3Galb1-3GlcNAcb-Sp0	20	4	15	6	11	9	4	2	17	16	23	16
206	KDNa2-3Galb1-4GlcNAcb-Sp0	52	24	108	87	19	10	22	6	70	58	33	15
207	Mana1-2Mana1-2Mana1-3Mana-Sp9	9	10	-16	9	19	11	3	2	15	13	-6	4
208	Mana1-2Mana1-6(Mana1-2Mana1-3)Mana-Sp9	3	3	8	8	14	10	3	6	9	7	21	8
209	Mana1-2Mana1-3Mana-Sp9	20	3	11	7	12	3	8	4	8	6	3	2
210	Mana1-6(Mana1-2Mana1-3)Mana1-6(Mana1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	51	21	13	3	14	3	8	5	18	9	8	7
211	Mana1-2Mana1-6(Mana1-3)Mana1-6(Mana1-2Mana1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	1	1	4	9	3	5	-1	5	-10	20	-4	6
212	Mana1-2Mana1-6(Mana1-2Mana1-3)Mana1-6(Mana1-2Mana1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	26	10	11	4	8	7	8	8	29	7	10	5
213	Mana1-6(Mana1-3)Mana-Sp9	5	4	6	3	5	7	8	12	19	13	4	3
214	Mana1-2Mana1-2Mana1-6(Mana1-3)Mana-Sp9	12	10	13	9	13	5	5	7	18	8	10	8
215	Mana1-6(Mana1-3)Mana1-6(Mana1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	45	52	532	688	13	6	18	15	2035	3851	29	25
216	Mana1-6(Mana1-3)Mana1-6(Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	37	16	13	1	59	79	10	7	24	18	11	9
217	Manb1-4GlcNAcb-Sp0	24	11	-19	58	19	8	13	9	35	11	32	16
218	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	1	5	3	6	21	20	3	4	25	26	5	10
219	(3S)Galb1-4(Fuca1-3)(6S)GlcNAcb-Sp8	17	7	4	1	6	6	3	4	20	21	4	4
220	Fuca1-2(6S)Galb1-4GlcNAcb-Sp0	1	4	0	23	15	14	-2	5	9	3	8	8
221	Fuca1-2Galb1-4(6S)GlcNAcb-Sp8	7	4	-1	4	6	11	14	5	11	6	6	6
222	Fuca1-2(6S)Galb1-4(6S)Glc-Sp0	2	5	5	10	12	12	9	6	11	5	4	4
223	Neu5Aca2-3Galb1-3GalNAca-Sp8	362	30	16	16	49	5	4	2	198	11	9	8
224	Neu5Aca2-3Galb1-3GalNAca-Sp14	87	12	21	5	17	13	5	5	44	12	16	10
225	GalNAcb1-4(Neu5Aca2-8Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp0	30467	793	25263	2902	220	65	4	5	29027	2154	11623	367
226	GalNAcb1-4(Neu5Aca2-8Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp0	30251	1122	24668	1805	615	62	73	15	11083	1485	9084	314
227	Neu5Aca2-8Neu5Aca2-8Neu5Aca2-3Galb1-4Glc-Sp0	14	3	7	4	6	2	13	3	18	9	12	9
228	GalNAcb1-4(Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp0	29776	749	22462	4224	1240	168	86	13	6937	616	8225	622
229	Neu5Aca2-8Neu5Aca2-8Neu5Aca-Sp8	64	11	92	139	45	32	79	76	42	36	15	9
230	Neu5Aca2-3(6S)Galb1-4(Fuca1-3)GlcNAcb-Sp8	14	9	3	8	4	4	15	11	3	11	5	0
231	GalNAcb1-4(Neu5Aca2-3)Galb1-4GlcNAcb-Sp0	21481	7738	5001	1586	13	15	14	9	6201	3224	1845	52
232	GalNAcb1-4(Neu5Aca2-3)Galb1-4GlcNAcb-Sp8	14635	5667	5273	279	4	10	5	4	12460	2459	1311	213
233	GalNAcb1-4(Neu5Aca2-3)Galb1-4Glc-Sp0	24678	2988	13394	963	419	31	33	9	10459	2758	5584	351
234	Neu5Aca2-3Galb1-3GalNAcb1-4(Neu5Aca2-3)Galb1-4Glc-Sp0	21	14	8	6	7	2	14	9	22	14	5	3
235	Neu5Aca2-6(Neu5Aca2-3)GalNAca-Sp8	40	14	26	7	8	1	3	1	62	30	15	3
236	Neu5Aca2-3GalNAca-Sp8	116	11	41	9	11	6	18	8	343	24	35	9
237	Neu5Aca2-3GalNAcb1-4GlcNAcb-Sp0	10	3	13	12	15	4	12	4	13	3	12	3
238	Neu5Aca2-3Galb1-3(6S)GlcNAcb-Sp8	13	5	14	8	13	7	20	10	15	6	11	6
239	Neu5Aca2-3Galb1-3(Fuca1-4)GlcNAcb-Sp8	6	9	12	5	9	6	12	6	9	6	-1	2
240	Neu5Aca2-3Galb1-3(Fuca1-4)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	195	44	108	18	59	21	21	10	94	39	21	14
241	Neu5Aca2-3Galb1-4(Neu5Aca2-3Galb1-3)GlcNAcb-Sp8	501	734	1115	1533	33	16	12	2	203	116	17	27
242	Neu5Aca2-3Galb1-3(6S)GalNAca-Sp8	4	4	34	12	4	6	7	4	20	3	8	9
243	Neu5Aca2-6(Neu5Aca2-3Galb1-3)GalNAca-Sp8	30	14	53	55	1	7	2	6	16	3	11	12
244	Neu5Aca2-6(Neu5Aca2-3Galb1-3)GalNAca-Sp14	695	44	329	7	5	3	4	4	522	28	67	11
245	Neu5Aca2-3Galb-Sp8	1	2	-4	3	9	14	2	4	6	7	9	4
246	Neu5Aca2-3Galb1-3GalNAcb1-3Gala1-4Galb1-4Glc-Sp0	61	21	501	523	9	3	5	8	36	13	5	6
247	Neu5Aca2-3Galb1-3GlcNAcb1-3Galb1-4GlcNAcb-Sp0	7	12	-1	3	6	2	11	6	3	6	10	6
248	Fuca1-2(6S)Galb1-4Glc-Sp0	16	10	67	103	13	8	4	7	16	11	7	1
249	Neu5Aca2-3Galb1-3GlcNAcb-Sp0	46	18	11	13	22	10	10	2	14	12	14	8
250	Neu5Aca2-3Galb1-3GlcNAcb-Sp8	21	6	9	7	3	2	2	2	-3	15	7	5
251	Neu5Aca2-3Galb1-4(6S)GlcNAcb-Sp8	5	5	51	56	3	7	10	5	7	5	17	8
252	Neu5Aca2-3Galb1-4(Fuca1-3)(6S)GlcNAcb-Sp8	6	8	26	7	12	9	21	1	83	75	26	24
253	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	141	10	51	10	8	1	20	19	68	20	5	6
254	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	14	8	-2	7	1	1	-5	4	-17	7	-14	5
255	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb-Sp8	16	11	6	6	10	10	4	8	28	18	0	4
256	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb-Sp8	10	6	8	3	10	3	8	3	3	5	11	4
257	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4GlcNAcb-Sp8	68	16	48	14	27	8	19	4	90	19	32	10
258	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	3	4	5	8	4	4	-1	3	5	2	5	4

259	Neu5Aca2-3Galb1-4GlcNAcb-Sp0	12	10	13	9	4	3	3	2	18	7	9	12
260	Neu5Aca2-3Galb1-4GlcNAcb-Sp8	6	2	11	3	5	11	1	3	12	13	7	5
261	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	-13	11	-7	8	9	1	9	6	-11	10	-4	5
262	Fuca1-2Galb1-4(6S)Glc-Sp0	18	6	6	6	10	7	16	9	26	10	19	20
263	Neu5Aca2-3Galb1-4Glc-Sp0	35	18	34	26	17	8	17	11	72	25	35	24
264	Neu5Aca2-3Galb1-4Glc-Sp8	-128	124	-3709	2211	11	21	-29	28	-1244	644	-181	67
265	Neu5Aca2-6GalNAca-Sp8	7927	942	33503	2869	182	2	100	30	5988	925	1806	122
266	Neu5Aca2-6GalNAcb1-4GlcNAcb-Sp0	11993	887	20900	1527	28	11	6	5	15215	2065	2683	125
267	Neu5Aca2-6Galb1-4(6S)GlcNAcb-Sp8	5	11	6	6	9	7	13	15	2	8	7	7
268	Neu5Aca2-6Galb1-4GlcNAcb-Sp0	29	21	-12	32	7	6	6	5	11	10	13	7
269	Neu5Aca2-6Galb1-4GlcNAcb-Sp8	6	10	957	960	8	5	7	5	16	13	10	4
270	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	488	218	71	33	46	16	17	4	272	38	43	7
271	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	15	6	5	6	3	2	3	4	4	5	20	11
272	Neu5Aca2-6Galb1-4Glc-Sp0	29	4	16	14	9	8	5	6	14	7	18	12
273	Neu5Aca2-6Galb1-4Glc-Sp8	31	14	18	8	6	11	5	2	14	13	1	4
274	Neu5Aca2-6Galb-Sp8	34	7	27	14	20	12	7	7	11	5	19	7
275	Neu5Aca2-8Neu5Aca-Sp8	7	7	30	11	-4	4	38	41	54	7	12	7
276	Neu5Aca2-8Neu5Aca2-3Galb1-4Glc-Sp0	31	6	9	7	13	7	6	4	21	6	-1	4
277	Galb1-3(Fuca1-4)GlcNAcb1-3Galb1-3(Fuca1-4)GlcNAcb-Sp0	54	28	25	14	7	5	5	3	28	27	10	14
278	Neu5Acb2-6GalNAca-Sp8	1111	115	654	55	13	5	2	4	352	30	15	6
279	Neu5Acb2-6Galb1-4GlcNAcb-Sp8	13	7	18	4	10	4	1	5	16	14	0	6
280	Neu5Gca2-3Galb1-3(Fuca1-4)GlcNAcb-Sp0	18	10	12	3	17	9	15	7	27	9	20	6
281	Neu5Gca2-3Galb1-3GlcNAcb-Sp0	25	11	162	300	12	14	11	6	8	6	8	9
282	Neu5Gca2-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	850	65	1384	91	23	3	13	3	4501	259	486	9
283	Neu5Gca2-3Galb1-4GlcNAcb-Sp0	7	8	27	18	10	14	2	3	19	17	11	5
284	Neu5Gca2-3Galb1-4Glc-Sp0	12	9	21	4	4	3	6	7	43	8	10	8
285	Neu5Gca2-6GalNAca-Sp0	1610	2119	6180	1991	20	22	9	16	4939	2990	1234	279
286	Neu5Gca2-6Galb1-4GlcNAcb-Sp0	17	13	10	6	12	7	9	3	21	12	10	10
287	Neu5Gca-Sp8	10	4	13	9	1	6	13	9	12	4	8	9
288	Neu5Aca2-3Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp14	30	12	14	10	24	6	18	11	12	11	29	20
289	Galb1-3GlcNAcb1-3Galb1-3GlcNAcb-Sp0	16	9	6	10	15	4	7	9	18	12	-5	3
290	Galb1-4(Fuca1-3)(6S)GlcNAcb-Sp0	51	10	56	13	32	6	18	6	80	29	33	16
291	Galb1-4(Fuca1-3)(6S)Glc-Sp0	9	8	20	9	22	10	21	20	61	23	38	34
292	Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-3(Fuca1-4)GlcNAcb-Sp0	10	35	-19	11	1	7	5	8	-19	27	-7	11
293	Galb1-4GlcNAcb1-3Galb1-3GlcNAcb-Sp0	7	7	15	18	10	7	8	4	8	10	5	2
294	Neu5Aca2-3Galb1-3GlcNAcb1-3Galb1-3GlcNAcb-Sp0	8	7	7	5	8	12	0	4	35	19	3	5
295	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-3GlcNAcb-Sp0	8	8	-49	66	11	6	8	3	9	4	5	5
296	4S(3S)Galb1-4GlcNAcb-Sp0	11	7	71	126	11	8	11	4	17	8	8	12
297	(6S)Galb1-4(6S)GlcNAcb-Sp0	-14	4	-1	5	10	8	8	4	-8	3	-1	3
298	(6P)Glc-Sp10	37	19	8	8	10	5	9	2	32	4	7	12
299	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-6(Galb1-3)GalNAca-Sp14	40	22	21	5	10	5	17	9	39	21	17	5
300	Galb1-3Galb1-4GlcNAcb-Sp8	22	11	14	6	11	7	8	4	14	5	16	14
301	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	16	9	16	10	12	7	14	10	14	7	14	10
302	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-3)Galb1-4GlcNAcb-Sp0	4	13	23	6	28	23	30	23	85	70	55	42
303	GlcNAcb1-6(Galb1-4GlcNAcb1-3)Galb1-4GlcNAcb-Sp0	-10	8	-4	5	5	6	9	9	-5	4	10	12
304	Galb1-4GlcNAcb1-6Galb1-4GlcNAcb-Sp0	6	6	5	5	22	15	10	5	7	9	10	14
305	Galb1-4GlcNAcb1-6Galb1-4GlcNAcb-Sp0	19	5	12	5	11	6	5	2	5	4	2	1
306	GalNAcb1-3Galb-Sp8	18778	2221	30074	648	6585	656	2752	147	18048	4540	4457	336
307	GlcAb1-3GlcNAcb-Sp8	8	6	1	7	12	8	9	9	30	20	16	9
308	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	4	5	12	5	14	12	4	4	30	31	11	14
309	GlcNAcb1-3Man-Sp10	25	11	10	8	9	6	2	6	24	5	5	7
310	GlcNAcb1-4GlcNAcb-Sp10	16	16	5	13	8	6	11	4	21	4	0	10
311	GlcNAcb1-4GlcNAcb-Sp12	14	8	12	2	7	4	4	3	16	6	6	3
312	MurNAcb1-4GlcNAcb-Sp10	9	16	-69	86	7	3	11	9	16	27	5	3
313	Mana1-6Manb-Sp10	21	15	6	9	9	4	6	2	83	99	3	4
314	Mana1-6(Mana1-3)Mana1-6(Mana1-3)Manb-Sp10	37	26	-64	29	16	12	20	17	-3	62	54	33
315	Mana1-2Mana1-6(Mana1-3)Mana1-6(Mana1-2Mana1-3)Mana-Sp9	41	6	8	6	17	4	9	9	10	11	5	7
316	Mana1-2Mana1-6(Mana1-2Mana1-3)Mana1-6(Mana1-2Mana1-2Mana1-3)Mana-Sp9	14	6	15	8	5	3	10	5	17	8	12	12
317	Neu5Aca2-3Galb1-4GlcNAcb1-6(Neu5Aca2-3Galb1-3)GalNAca-Sp14	16	9	13	5	9	12	7	3	36	15	11	5
318	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-3Galb1-4GlcNAcb1-4GlcNAcb1-4GlcNAcb-Sp12	16	5	14	3	10	3	3	2	19	4	8	2
319	Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	28	16	18	5	7	7	13	9	13	11	17	13
320	GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	6	5	12	7	22	7	4	6	2	3	8	10
321	Neu5Aca2-8Neu5Acb-Sp17	35	3	18	9	10	7	2	2	39	13	13	11
322	Neu5Aca2-8Neu5Aca2-8Neu5Acb-Sp8	8	5	9	5	9	6	19	14	5	3	9	11
323	Neu5Gcb2-6Galb1-4GlcNAcb-Sp8	12	6	11	12	6	4	10	5	20	2	11	6
324	Galb1-3GlcNAcb1-2Mana1-6(Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	51	27	10	9	10	0	5	4	39	21	6	3

325	Neu5Aca2-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	24	14	27	31	46	44	96	114	271	44	244	181
326	Neu5Aca2-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	5	2	11	6	9	7	1	1	4	5	5	1
327	Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-6(Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	12	18	13	8	-1	7	9	9	6	7	5	5
328	Neu5,9Ac2a2-3Galb1-4GlcNAcb-Sp0	4	1	-94	89	12	6	11	11	-13	6	14	5
329	Neu5,9Ac2a2-3Galb1-3GlcNAcb-Sp0	-8	17	0	8	1	3	11	5	0	11	7	4
330	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-3GlcNAcb-Sp0	12	4	-32	27	5	5	-1	11	5	7	12	4
331	Neu5Aca2-3Galb1-3(Fuca1-4)GlcNAcb1-3Galb1-3(Fuca1-4)GlcNAcb-Sp0	293	110	108	91	14	1	7	5	273	45	75	24
332	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	10	11	-109	133	7	7	8	7	19	4	14	13
333	Gala1-4Galb1-4GlcNAcb1-3Galb1-4Glc-Sp0	16	11	2	5	10	4	12	14	10	3	17	10
334	GalNAcb1-3Gala1-4Galb1-4GlcNAcb1-3Galb1-4Glc-Sp0	2480	514	29984	14247	730	119	440	296	7671	1532	1616	619
335	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	2019	924	4363	349	9	11	7	4	4358	1096	111	30
336	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	560	89	2550	158	15	14	6	4	3711	287	84	14
337	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-6(Neu5Aca2-3Galb1-3)GalNAc-Sp14	36	30	54	52	11	6	8	5	61	69	22	14
338	GlcNAca1-4Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	5	2	-37	64	6	6	8	8	12	7	16	9
339	GlcNAca1-4Galb1-4GlcNAcb-Sp0	11	4	2	6	10	7	4	5	12	13	4	5
340	GlcNAca1-4Galb1-3GlcNAcb-Sp0	15	8	581	567	14	14	10	5	20	11	8	7
341	GlcNAca1-4Galb1-4GlcNAcb1-3Galb1-4Glc-Sp0	14	6	7	1	8	7	11	8	8	3	12	7
342	GlcNAca1-4Galb1-4GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	83	11	23	7	28	12	15	2	44	17	20	9
343	GlcNAca1-4Galb1-4GlcNAcb1-3Galb1-4GlcNAcb-Sp0	9	16	13	8	12	8	9	3	6	8	12	7
344	GlcNAca1-4Galb1-3GalNAc-Sp14	14	8	2	2	7	6	13	6	21	9	4	9
345	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	19	15	15	5	10	4	13	9	15	4	11	5
346	Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	-22	7	-87	17	7	3	7	5	-16	9	0	14
347	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6Manb1-4GlcNAcb1-4GlcNAcb-Sp12	21	9	10	1	19	6	12	3	5	6	19	12
348	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-3Manb1-4GlcNAcb1-4GlcNAcb-Sp12	74	48	100	61	140	95	117	63	312	205	146	142
349	Galb1-4GlcNAcb1-2Mana1-3Manb1-4GlcNAcb1-4GlcNAcb-Sp12	-1	13	-1	2	0	3	10	8	4	2	-3	4
350	Galb1-4GlcNAcb1-2Mana1-6Manb1-4GlcNAcb1-4GlcNAcb-Sp12	6	9	8	2	13	4	9	8	11	7	7	7
351	Mana1-6(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	154	7	32	55	15	6	3	4	125	6	18	8
352	GlcNAcb1-2Mana1-6(GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	28	9	24	11	17	5	5	-3	25	16	5	5
353	Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	18	10	12	2	8	6	11	11	20	7	9	8
354	Galb1-3GlcNAcb1-2Mana1-6(Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	-18	17	2	1	3	1	10	6	6	8	17	8
355	(6S)GlcNAcb1-3Galb1-4GlcNAcb-Sp0	9	7	-220	111	13	7	13	5	16	12	22	6
356	KDNa2-3Galb1-4(Fuca1-3)GlcNAcb-Sp0	13	7	10	4	3	7	12	5	17	17	17	19
357	KDNa2-6Galb1-4GlcNAcb-Sp0	4	4	-22	67	3	5	-4	8	14	2	19	2
358	KDNa2-3Galb1-4Glc-Sp0	8	8	11	3	11	14	2	6	29	8	6	5
359	KDNa2-3Galb1-3GalNAca-Sp14	120	27	62	24	6	5	8	4	97	57	8	2
360	Fuca1-2Galb1-3GlcNAcb1-2Mana1-6(Fuca1-2Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	192	52	155	41	106	52	11	3	293	105	101	28
361	Fuca1-2Galb1-4GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	150	35	48	14	27	9	12	10	93	43	43	7
362	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	217	29	41	8	33	19	19	13	88	15	24	10
363	Gala1-3Galb1-4GlcNAcb1-2Mana1-6(Gala1-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	15	5	242	383	7	4	15	14	15	12	10	10
364	Galb1-4GlcNAcb1-2Mana1-6(Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	40	11	24	15	19	16	17	12	29	25	18	8
365	Fuca1-4(Galb1-3)GlcNAcb1-2Mana1-6(Fuca1-4(Galb1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	485	22	194	32	25	9	11	4	295	30	80	21
366	Neu5Aca2-6GlcNAcb1-4GlcNAcb-Sp21	-3	1	1	4	9	3	2	7	5	1	-1	5
367	Neu5Aca2-6GlcNAcb1-4GlcNAcb1-4GlcNAcb-Sp21	21	13	12	9	3	4	-1	6	14	6	6	5
368	Galb1-4(Fuca1-3)GlcNAcb1-6(Fuca1-2Galb1-4GlcNAcb1-3)Galb1-4Glc-Sp21	18	5	16	5	15	7	10	4	21	11	24	5
369	Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-4(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	10	2	8	5	5	3	5	6	8	11	4	6
370	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-6(GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	24579	2708	5272	173	20	11	10	8	4921	1116	700	64
371	Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-6(Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	28	23	9	3	15	13	23	12	40	22	19	5
372	Gala1-3Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-6(Gala1-3Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	52	49	23	11	10	6	7	4	64	5	5	6
373	GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-6(GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	757	63	3252	283	7	5	8	2	1230	89	180	77
374	Gala1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-6(Gala1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp20	19	11	13	5	6	3	3	3	40	15	12	9
375	Fuca1-4(Fuca1-2Galb1-3)GlcNAcb1-2Mana1-3(Fuca1-4(Fuca1-2Galb1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	60	9	17	5	23	13	14	9	151	36	14	2
376	Neu5Aca2-3Galb1-4GlcNAcb1-3GalNAc-Sp14	12	3	5	6	4	4	4	3	8	3	5	2
377	Neu5Aca2-6Galb1-4GlcNAcb1-3GalNAc-Sp14	1385	75	1145	701	21	4	12	7	1310	27	219	41
378	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-3GalNAca-Sp14	265	34	155	10	84	11	73	42	252	23	104	8
379	GalNAcb1-4GlcNAcb1-2Mana1-6(GalNAcb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	16066	1176	38475	3541	308	49	47	11	24662	4518	3943	214
380	Galb1-3GalNAca1-3(Fuca1-2)Galb1-4Glc-Sp0	19	6	-126	166	5	4	11	8	-8	19	12	7
381	Galb1-3GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb-Sp0	13	9	0	3	17	13	1	3	0	6	3	3
382	Galb1-3GlcNAcb1-3Galb1-4GlcNAcb1-6(Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp0	12	12	12	9	19	10	10	11	11	7	5	7
383	Galb1-4(Fuca1-3)GlcNAcb1-6(Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp21	-1	6	9	6	15	15	6	5	4	8	11	6
384	Galb1-4GlcNAcb1-6(Fuca1-4(Fuca1-2Galb1-3)GlcNAcb1-3)Galb1-4Glc-Sp21	29	29	-4	14	14	10	15	9	15	7	15	13

385	Galb1-4(Fuca1-3)GlcNAcb1-6(Fuca1-4(Fuca1-2Galb1-3)GlcNAcb1-3)Galb1-4Glc-Sp21	13	5	0	1	9	9	4	5	16	6	4	5
386	Galb1-3GlcNAcb1-3Galb1-4(Fuca1-3)GlcNAcb1-6(Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp21	13	7	23	8	6	2	5	3	2	5	1	1
387	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-2)Mana1-6(Galb1-4GlcNAcb1-4(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	15	9	6	9	6	8	4	3	7	8	-1	8
388	GlcNAcb1-2Mana1-6(GlcNAcb1-4(GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	-6	7	22	48	12	9	6	15	17	25	18	
389	Fuca1-2Galb1-3GalNAca1-3(Fuca1-2)Galb1-4Glc-Sp0	19	13	358	477	6	12	12	5	14	18	6	6
390	Fuca1-2Galb1-3GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb-Sp0	20	10	10	10	19	7	4	2	12	3	3	3
391	Galb1-3GlcNAcb1-3GalNAca-Sp14	41	7	13	9	9	5	4	9	24	21	11	4
392	GalNAcb1-4(Neu5Aca2-3)Galb1-4GlcNAcb1-3GalNAca-Sp14	2430	698	1516	311	13	8	9	6	4038	163	52	8
393	GalNAca1-3(Fuca1-2)Galb1-3GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb-Sp0	20365	1696	3874	127	15	9	8	9	2387	506	202	88
394	Gala1-3Galb1-3GlcNAcb1-2Mana1-6(Gala1-3Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	59	9	314	426	12	4	14	8	46	15	14	5
395	Gala1-3Galb1-3(Fuca1-4)GlcNAcb1-2Mana1-6(Gala1-3Galb1-3(Fuca1-4)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	273	29	323	402	30	8	13	4	146	26	52	23
396	Neu5Aca2-3Galb1-3GlcNAcb1-2Mana1-6(Neu5Aca2-3Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	46	11	20	12	12	15	10	7	35	3	7	3
397	GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	1	2	7	7	7	7	8	3	0	7	-2	4
398	Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	64	5	44	9	3	3	9	9	107	15	22	5
399	Neu5Aca2-3Galb1-3GlcNAcb1-3GalNAca-Sp14	24	10	12	2	4	5	11	5	17	5	2	1
400	Fuca1-2Galb1-4GlcNAcb1-3GalNAca-Sp14	34	22	9	7	3	6	9	3	39	17	9	9
401	Galb1-4(Fuca1-3)GlcNAcb1-3GalNAca-Sp14	14	19	185	159	13	8	9	6	17	7	13	6
402	GalNAca1-3GalNAcb1-3Gala1-4Galb1-4GlcNAcb-Sp0	780	25	8852	134	9	7	5	6	8230	450	984	28
403	Gala1-4Galb1-3GlcNAcb1-2Mana1-6(Gala1-4Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	10	5	12	2	24	14	7	6	17	8	13	11
404	Gala1-4Galb1-4GlcNAcb1-2Mana1-6(Gala1-4Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp24	25	10	9	6	10	11	11	6	43	15	18	1
405	Gala1-3Galb1-4GlcNAcb1-3GalNAca-Sp14	9	9	8	8	10	7	4	2	9	4	4	6
406	Galb1-3GlcNAcb1-6Galb1-4GlcNAcb-Sp0	12	3	17	4	1	0	7	5	7	5	16	15
407	Galb1-3GlcNAca1-6Galb1-4GlcNAcb-Sp0	21	8	15	6	10	5	14	14	9	12	5	6
408	GalNAcb1-3Gala1-6Galb1-4Glc-Sp8	19603	1765	29118	1298	5310	128	2770	238	14435	1748	6216	574
409	Gala1-3(Fuca1-2)Galb1-4(Fuca1-3)Glc-Sp21	16	8	-51	104	5	6	5	6	-3	16	26	24
410	Galb1-4GlcNAcb1-6(Neu5Aca2-6Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp21	5	8	20	17	-4	4	-1	2	22	25	9	4
411	Galb1-3GalNAcb1-4(Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp0	9739	869	4164	332	9	4	12	13	7205	593	1169	153
412	Neu5Aca2-3Galb1-3GalNAcb1-4(Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp0	99	7	23	9	8	13	12	13	71	28	11	8
413	Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-3GalNAca-Sp14	31	12	99	126	12	3	4	3	29	11	7	2
414	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-3GalNAca-Sp14	399	39	767	20	2	6	6	14	297	30	7	8
415	GalNAca1-3GalNAcb1-3Gala1-4Galb1-4Glc-Sp0	18646	1018	6118	309	22	13	9	4	3879	83	197	25
416	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-3GalNAca-Sp14	49	6	483	189	24	5	12	6	46	15	8	5
417	Gala1-3(Fuca1-2)Galb1-4(Fuca1-3)GlcNAcb1-3GalNAca-Sp14	45	28	3	5	10	1	3	8	16	18	14	2
418	GalNAca1-3(Fuca1-2)Galb1-4(Fuca1-3)GlcNAcb1-3GalNAca-Sp14	145	22	151	119	12	10	32	39	89	14	14	7
419	Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-6(Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	40	10	9	19	8	5	21	19	37	12	18	14
420	Fuca1-2Galb1-4GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	241	22	162	24	45	16	12	6	219	11	104	21
421	GlcNAcb1-2(GlcNAcb1-6)Mana1-6(GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	5	9	9	5	8	8	10	7	13	8	10	10
422	Fuca1-2Galb1-3GlcNAcb1-3GalNAca-Sp14	24	16	6	4	5	11	11	6	28	14	6	7
423	Gala1-3(Fuca1-2)Galb1-3GlcNAcb1-3GalNAca-Sp14	15	11	1	3	24	11	7	7	29	24	4	1
424	GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb1-3GalNAca-Sp14	298	35	378	17	16	20	12	11	410	53	20	4
425	Gala1-3Galb1-3GlcNAcb1-3GalNAca-Sp14	40	7	29	5	11	14	5	3	28	5	7	6
426	Fuca1-2Galb1-3GlcNAcb1-2Mana1-6(Fuca1-2Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	196	23	131	21	31	17	15	10	224	17	87	20
427	Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-6(Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	92	29	60	14	7	7	1	6	61	21	24	3
428	Galb1-3GlcNAcb1-6(Galb1-3GlcNAcb1-2)Mana1-6(Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	23	23	-197	47	-14	21	-66	26	-99	22	-28	11
429	Galb1-4GlcNAcb1-6(Fuca1-2Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp21	4	6	-1	4	6	5	6	7	11	2	4	9
430	Fuca1-3GlcNAcb1-6(Galb1-4GlcNAcb1-3)Galb1-4Glc-Sp21	10	5	-72	85	17	5	11	6	8	10	16	8
431	GlcNAcb1-2Mana1-6(GlcNAcb1-4)(GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	13	8	8	10	5	3	2	11	15	11	3	7
432	GlcNAcb1-2Mana1-6(GlcNAcb1-4)(GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	142	91	6	8	32	14	3	7	41	16	13	7
433	GlcNAcb1-6(GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	7	3	6	2	2	3	6	5	11	5	14	13
434	GlcNAcb1-6(GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	9	1	10	4	2	7	10	8	4	1	5	4
435	Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-4)(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	4	4	8	6	12	9	4	3	13	9	5	7
436	Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-4)(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	10	8	1	6	4	8	12	4	9	8	4	4
437	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	12	3	5	3	8	5	10	1	9	3	1	9
438	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	-64	12	-76	7	-10	16	-14	7	-11	34	-38	20
439	Galb1-4Galb-Sp10	-33	18	-433	281	-20	5	-31	9	-55	23	-22	5
440	Galb1-6Galb-Sp10	-45	37	178	252	7	11	9	3	-28	14	-16	7
441	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb-Sp8	-140	109	-4146	1824	-10	9	-43	31	-2120	316	-557	92
442	GalNAcb1-6GalNAcb-Sp8	26	11	13	5	5	4	6	8	18	15	14	14
443	(6S)Galb1-3GlcNAcb-Sp0	97	30	19	11	13	8	5	55	20	8	6	6

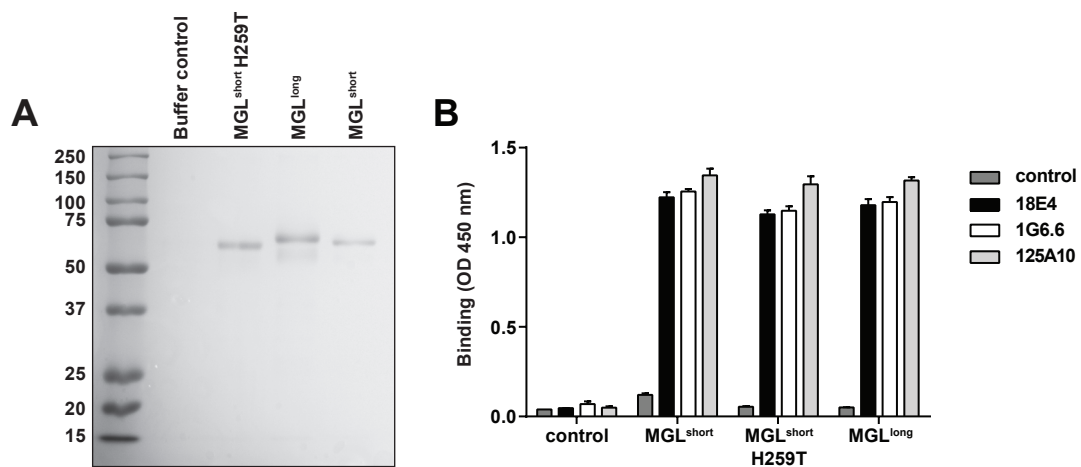
444	(6S)Galb1-3(6S)GlcNAc-Sp0	-42	17	-209	74	-37	7	-19	18	-121	83	-25	13
445	Fuca1-2Galb1-4-GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4GlcNAcb1-2(Fuca1-2Galb1-4GlcNAcb1-4)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	36	11	-134	44	1	17	-22	11	-72	15	-14	17
446	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-4(Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	192	25	109	42	32	2	13	4	145	35	55	12
447	Galb1-4(Fuca1-3)GlcNAcb1-6GalNAc-Sp14	4608	113	5365	414	20	11	13	4	6238	365	1315	156
448	Galb1-4GlcNAcb1-2Mana-Sp0	140	34	495	64	21	6	5	4	1153	53	125	39
449	Fuca1-2Galb1-4GlcNAcb1-6(Fuca1-2Galb1-4GlcNAcb1-3)GalNAc-Sp14	445	14	189	20	21	5	12	7	278	21	66	13
450	Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-6(Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-3)GalNAc-Sp14	160	64	34	7	66	39	13	13	260	35	17	12
451	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-6(GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-3)GalNAc-Sp14	385	45	4353	60	1	7	3	3	4272	312	189	41
452	Neu5Aca2-8Neu5Aca2-3Galb1-3GalNAcb1-4(Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp0	18	10	9	3	7	6	18	6	24	9	20	9
453	GalNAcb1-4Galb1-4Glc-Sp0	140	60	-3	30	12	10	7	5	232	29	7	7
454	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-6(GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	148	58	137	46	5	8	26	11	1763	357	-15	190
455	Gala1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-6(Gala1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	38	23	-24	30	12	8	13	3	16	10	0	4
456	Neu5Aca2-6Galb1-4GlcNAcb1-6(Fuca1-2Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp21	30	21	11	6	6	8	2	10	18	9	7	11
457	GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-6(GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp22	6238	590	881	45	-8	8	-8	17	742	177	-3	31
458	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-2)Mana1-6(Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	45	20	5	3	17	15	5	4	19	9	15	9
459	Neu5Aca2-3Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-4)(Neu5Aca2-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	22	2	9	7	9	5	6	2	15	6	8	3
460	Neu5Aca2-3Galb1-4GlcNAcb1-4Mana1-6(GlcNAcb1-4)(Neu5Aca2-3Galb1-4GlcNAcb1-4)(Neu5Aca2-3Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	13	9	15	18	8	3	8	7	14	6	11	6
461	Neu5Aca2-3Galb1-4GlcNAcb1-6(Neu5Aca2-3Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(Neu5Aca2-3Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	18	21	6	2	9	8	18	26	18	6	13	7
462	Neu5Aca2-3Galb1-4GlcNAcb1-6(Neu5Aca2-3Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(Neu5Aca2-3Galb1-4GlcNAcb1-4)(Neu5Aca2-3Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	5	6	6	6	5	5	10	8	21	10	6	6
463	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-4)(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	32	11	5	5	10	12	2	5	22	2	14	14
464	Neu5Aca2-6Galb1-4GlcNAcb1-4Mana1-6(GlcNAcb1-4)(Neu5Aca2-6Galb1-4GlcNAcb1-4)(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	-1137	145	-12055	1384	-15	11	4	7	-2088	967	-309	220
465	Neu5Aca2-6Galb1-4GlcNAcb1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	19	11	7	2	12	17	2	8	9	14	7	8
466	Neu5Aca2-6Galb1-4GlcNAcb1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(Neu5Aca2-6Galb1-4GlcNAcb1-4)(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	-332	17	-7002	2942	-61	20	4	2	-4320	404	-728	178
467	Gala1-3(Fuca1-2)Galb1-3GalNAc-Sp8	42	11	-18	56	5	6	16	9	26	21	8	12
468	Gala1-3(Fuca1-2)Galb1-3GalNAc-Sp8	19	8	38	15	6	7	14	10	29	5	15	6
469	Gica1-6Gica1-6Gica1-6Glc-Sp10	12	7	5	8	7	10	2	8	3	5	7	5
470	Gica1-4Gica1-4Gica1-4Glc-Sp10	15	2	9	4	14	8	9	10	12	9	4	1
471	Neu5Aca2-3Galb1-4GlcNAcb1-6(Neu5Aca2-3Galb1-4GlcNAcb1-3)GalNAc-Sp14	-117	58	-3309	1169	0	6	-35	21	-635	231	-299	64
472	Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp24	83	31	57	12	11	5	12	10	95	41	11	11
473	Fuca1-2Galb1-3(Fuca1-4)GlcNAcb1-2Mana1-6(Fuca1-2Galb1-3(Fuca1-4)GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp19	74	21	56	41	20	8	6	4	85	23	27	16
474	Neu5Aca2-3Galb1-3GlcNAcb1-6(Neu5Aca2-3Galb1-3GlcNAcb1-2)Mana1-6(Neu5Aca2-3Galb1-3GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp19	108	6	45	8	4	6	5	3	73	9	13	6
475	GlcNAcb1-6(GlcNAcb1-2)Mana1-6(GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp24	4	5	-52	108	8	3	19	9	0	6	10	7
476	Galb1-3GlcNAcb1-2Mana1-6(GlcNAcb1-4)(Galb1-3GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	14	6	27	20	17	7	11	7	17	5	23	7
477	Neu5Aca2-6Galb1-4GlcNAcb1-6(Galb1-3GlcNAcb1-3)Galb1-4Glc-Sp21	-6	6	-50	28	7	17	10	10	-21	14	-4	7
478	Neu5Aca2-3Galb1-4GlcNAcb1-2Mana-Sp0	392	41	180	108	42	10	29	7	388	8	136	18
479	Neu5Aca2-3Galb1-4GlcNAcb1-6GalNAc-Sp14	14378	1523	34032	1421	10949	5984	18005	1024	24486	6172	4700	147
480	Neu5Aca2-6Galb1-4GlcNAcb1-6GalNAc-Sp14	128	6	59	8	11	8	10	10	77	25	33	3
481	Neu5Aca2-6Galb1-4GlcNAcb1-6(Neu5Aca2-6Galb1-4GlcNAcb1-3)GalNAc-Sp14	596	36	224	49	25	12	6	3	263	23	56	12
482	Neu5Aca2-6Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp24	-65	20	-77	33	3	2	16	3	-23	21	0	5
483	Neu5Aca2-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-3Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp24	34	13	23	7	13	9	11	5	43	18	8	9
484	Mana1-6(Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp19	31	10	11	2	13	5	5	3	18	8	21	5
485	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-2)Mana1-6(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp24	12	7	13	5	11	2	15	9	16	9	18	8
486	Neu5Aca2-3Galb1-3GlcNAcb1-2Mana1-6(GlcNAcb1-4)(Neu5Aca2-3Galb1-3GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp21	36	11	3	5	9	2	6	3	15	2	14	7
487	Neu5Aca2-6Galb1-4GlcNAcb1-6(Fuca1-2Galb1-4(Fuca1-3)GlcNAcb1-3)Galb1-4Glc-Sp21	5	5	-34	46	6	2	2	2	14	14	18	11
488	Galb1-3GlcNAcb1-6GalNAc-Sp14	28774	1447	29058	1688	12990	3229	11643	1540	8890	2348	13051	1033
489	Gala1-3Galb1-3GlcNAcb1-6GalNAc-Sp14	19291	4418	30470	1975	19977	4677	18669	546	14289	5426	7725	1909
490	Galb1-3(Fuca1-4)GlcNAcb1-6GalNAc-Sp14	16898	1339	8292	1080	313	54	28	18	8734	521	3007	367
491	Neu5Aca2-3Galb1-3GlcNAcb1-6GalNAc-Sp14	5470	326	37506	7915	1549	121	12108	1729	13060	1161	3469	842
492	(3S)Galb1-3(Fuca1-4)GlcNAcb-Sp0	30	13	7	4	13	6	1	6	21	16	16	10
493	Galb1-4(Fuca1-3)GlcNAcb1-6(Neu5Aca2-6(Neu5Aca2-3Galb1-3)GlcNAcb1-3)Galb1-4Glc-Sp21	27	5	-20	49	16	8	6	4	23	7	4	3
494	Fuca1-2Galb1-4GlcNAcb1-6GalNAc-Sp14	7970	1342	33601	1620	16051	4184	13768	2139	24889	3535	3297	706
495	Gala1-3Galb1-4GlcNAcb1-6GalNAc-Sp14	12759	765	33787	1779	12567	3595	18637	945	23891	4719	4426	125
496	Galb1-4(Fuca1-3)GlcNAcb1-2Mana-Sp0	12	5	21	26	13	12	5	3	22	13	7	14



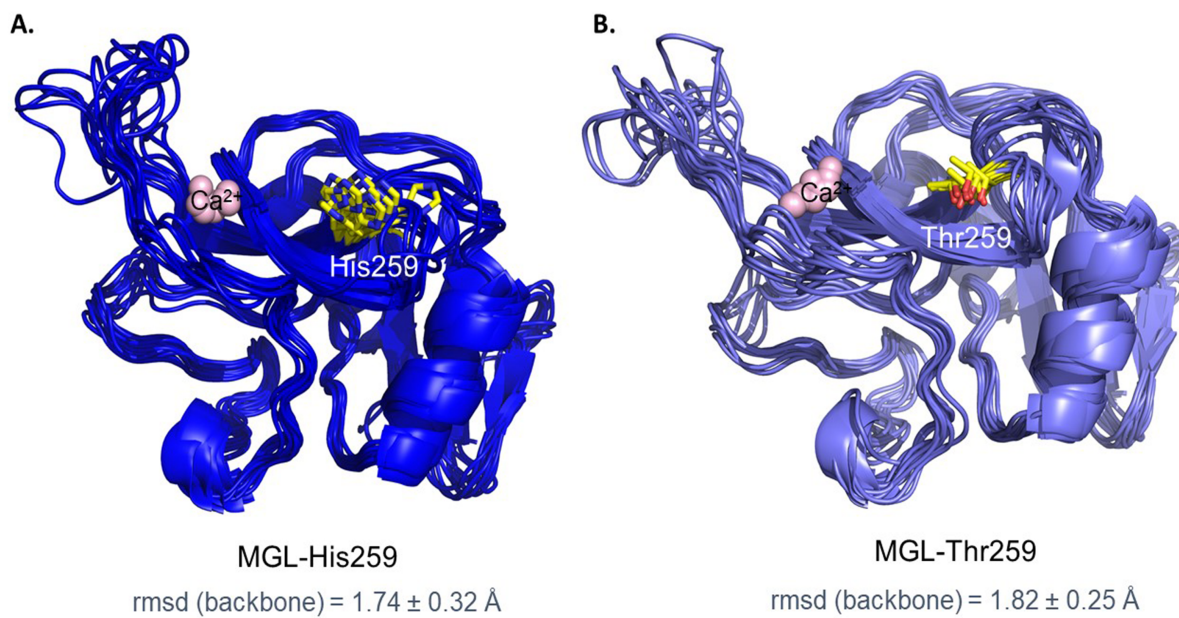
497	Fuca1-2(6S)Galb1-3GlcNAcb-Sp0	32	8	22	3	4	5	4	1	28	14	11	5
498	Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-6GalNaca-Sp14	16	7	0	7	-2	2	7	3	11	14	0	4
499	Fuca1-2Galb1-4GlcNAcb1-2Mana-Sp0	18	9	10	6	6	7	8	2	16	4	13	13
500	Fuca1-2Galb1-3(6S)GlcNAcb-Sp0	800	39	462	15	53	6	12	11	657	54	213	8
501	Fuca1-2(6S)Galb1-3(6S)GlcNAcb-Sp0	653	19	499	38	81	28	13	8	693	66	238	25
502	Neu5Aca2-6GalNAcb1-4(6S)GlcNAcb-Sp8	749	113	8123	609	2	5	7	2	6674	829	237	29
503	GalNAcb1-4(Fuca1-3)(6S)GlcNAcb-Sp8	12390	918	25648	1188	566	48	12	5	12592	1472	3978	2666
504	(3S)GalNAcb1-4(Fuca1-3)GlcNAcb-Sp8	70	5	199	248	11	13	17	8	29	8	13	7
505	Fuca1-2Galb1-3GlcNAcb1-6(Fuca1-2Galb1-3GlcNAcb1-3)GalNAca-Sp14	89	33	45	21	5	1	23	8	52	17	6	12
506	GalNAca1-3(Fuca1-2)Galb1-3GlcNAcb1-6GalNAca-Sp14	18906	893	26267	1657	17265	3151	12561	533	19852	4411	6413	318
507	GlcNAcb1-6(GlcNAcb1-2)Mana1-6(GlcNAcb1-4)(GlcNAcb1-4)(GlcNAcb1-2)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp21	13	12	5	1	12	10	7	8	-10	11	2	1
508	Galb1-4GlcNAcb1-6(Galb1-4GlcNAcb1-2)Mana1-6(GlcNAcb1-4)Galb1-4GlcNAcb1-4(Galb1-4GlcNAcb1-2)Mana1-3)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp21	1	4	6	3	10	5	9	7	6	5	8	1
509	Galb1-3GlcNAca1-3Galb1-4GlcNAcb-Sp8	12	7	-1	3	11	7	2	3	4	7	-2	5
510	Galb1-3(6S)GlcNAcb-Sp8	4	6	5	7	5	4	6	2	31	9	12	13
511	(6S)(4S)GalNAcb1-4GlcNAcb-Sp8	17	4	9	6	11	2	9	3	13	3	9	5
512	(6S)GalNAcb1-4GlcNAcb-Sp8	10499	2512	48863	3880	1771	115	74	11	14951	8813	4256	479
513	(3S)GalNAcb1-4(3S)GlcNAcb-Sp8	23	5	12	3	8	3	25	14	48	26	12	8
514	GalNAcb1-4(6S)GlcNAcb-Sp8	4062	301	31705	6021	3048	788	141	21	11725	859	2441	192
515	(3S)GalNAcb1-4GlcNAcb-Sp8	10	6	48	82	10	4	8	8	6	25	23	10
516	(4S)GalNAcb-Sp10	5	4	2	3	6	4	-3	4	5	6	2	11
517	Galb1-4(6P)GlcNAcb-Sp0	9	11	4	3	10	12	4	3	17	15	3	8
518	(6P)Galb1-4GlcNAcb-Sp0	2	5	7	5	5	3	6	5	13	20	12	4
519	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-6GalNAcb-Sp14	11834	1125	43374	4868	1508	381	16750	841	9770	841	3312	112
520	Neu5Aca2-6Galb1-4GlcNAcb1-2Man-Sp0	-105	27	-81	9	-6	10	4	5	-49	18	-14	8
521	Gala1-3Galb1-4GlcNAcb1-2Mana-Sp0	15	19	-35	30	7	6	9	6	4	5	-5	6
522	Gala1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana-Sp0	19	13	10	21	3	6	8	3	20	17	10	9
523	GalNAca1-3(Fuca1-2)Galb1-4GlcNAcb1-2Mana-Sp0	852	70	4789	339	8	7	5	10	6353	295	494	57
524	Galb1-3GlcNAcb1-2Mana-Sp0	43	21	-12	48	4	5	12	14	19	10	6	6
525	Gala1-3(Fuca1-2)Galb1-3GlcNAcb1-6GalNAcb-Sp14	17114	1513	32323	2463	4634	804	2404	239	26305	2206	3953	132
526	Neu5Aca2-3Galb1-3GlcNAcb1-2Mana-Sp0	14	11	203	252	-2	7	4	12	12	4	5	6
527	Gala1-3Galb1-3GlcNAcb1-2Mana-Sp0	50	7	20	3	11	7	7	5	21	12	19	7
528	GalNAcb1-4GlcNAcb1-2Mana-Sp0	11054	659	33628	1466	7482	990	164	17	22852	3411	9224	943
529	Neu5Aca2-3Galb1-3GlcNAcb1-4Galb1-4Glc-Sp0	19	6	4	2	5	6	4	4	14	8	8	10
530	GlcNAcb1-2 Mana1-6(GlcNAcb1-4)(GlcNAcb1-2)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp21	5	6	-58	63	0	8	10	1	24	17	5	5
531	Galb1-4GlcNAcb1-2 Mana1-6(GlcNAcb1-4)(Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp21	14	10	3	8	12	10	3	6	-1	14	7	3
532	Galb1-4GlcNAcb1-2 Mana1-6(Galb1-4GlcNAcb1-4)(Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4(Fuca1-6)GlcNAcb-Sp21	13	8	20	8	4	5	-3	3	4	17	0	5
533	Fuca1-4(Galb1-3)GlcNAcb1-2 Mana-Sp0	375	55	780	411	20	6	14	15	348	30	39	28
534	Neu5Aca2-3Galb1-4(Fuca1-3)GlcNAcb1-2Mana-Sp0	178	11	35	7	49	10	178	4	1	77	11	15
535	GlcNAcb1-3Galb1-4GlcNAcb1-6(GlcNAcb1-3)Galb1-4GlcNAcb-Sp0	24	14	8	2	14	10	6	7	31	33	12	3
536	GalNAca1-3(Fuca1-2)Galb1-3GalNAcb1-3Gala1-4Galb1-4Glc-Sp21	234	37	1486	297	6	5	11	8	1670	331	23	17
537	Gala1-3(Fuca1-2)Galb1-3GalNAcb1-3Gala1-4Galb1-4Glc-Sp21	9	11	457	527	7	3	5	5	4	17	4	3
538	Galb1-3GalNAcb1-3Gal-Sp21	33	15	9	8	13	2	6	8	32	20	9	5
539	GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	9	6	4	5	7	3	-2	2	4	5	6	13
540	GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp25	34	28	9	5	16	13	13	7	34	10	7	9
541	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	142	18	21	15	37	20	19	11	198	19	17	6
542	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp24	19	17	-20	33	-17	21	18	14	14	14	-7	6
543	Neu5Gca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Gca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp24	20	4	30	13	9	0	16	10	18	10	13	6
544	Fuca1-2Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Fuca1-2Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp24	63	7	63	7	10	6	14	7	85	11	36	2
545	GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	75	29	21	3	25	7	13	6	93	23	15	7
546	GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp25	61	7	201	138	5	7	9	8	49	7	26	15
547	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	175	41	135	136	8	3	7	6	63	7	8	5
548	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp24	184	11	122	14	47	15	16	4	157	19	36	4
549	GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp25	109	31	43	9	56	66	7	6	50	48	12	4
550	Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp25	239	20	136	9	55	9	18	7	120	5	35	14
551	Galb1-3GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Galb1-3GlcNAcb1-3Galb1-4GlcNAcb1-2)Manb1-4GlcNAcb1-4GlcNAcb-Sp25	182	14	103	26	20	6	13	8	81	27	24	7



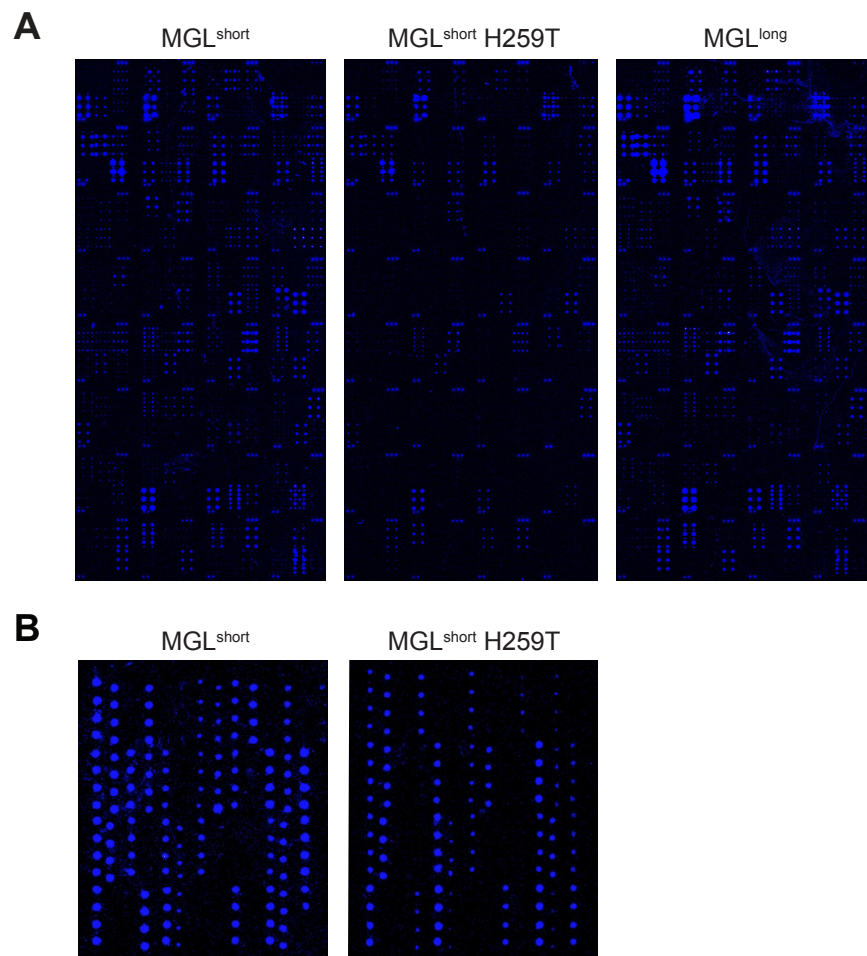
594	GlcNAcb1-3Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp14	-70	19	1	10	5	2	3	2	12	17	-3	5
595	GlcNAcb1-3Galb1-4GlcNAcb1-6(GlcNAcb1-3Galb1-4GlcNAcb1-3)GalNAca-Sp14	-232	106	-52	8	4	3	10	3	-33	13	5	3
596	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-6(Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3)GalNAca-Sp14	-107	72	-1385	171	36	14	8	10	-55	21	-6	12
597	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3GalNAca-Sp14	-7643	2138	-3782	1683	-161	64	-138	31	-1803	607	-611	201
598	GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3GalNAca-Sp14	3	8	-12	10	10	7	7	2	-22	8	-2	5
599	Galb1-4GlcNAcb1-3Galb1-3GalNAca-Sp14	-30	18	12	89	-5	4	-9	9	-47	18	-59	34
600	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp14	81	55	20	113	-9	11	-2	7	-15	81	-17	38
601	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp14	124	24	141	64	15	10	13	14	53	16	1	6
602	Neu5Aca2-6Galb1-4GlcNAcb1-6(Galb1-3)GalNAca-Sp14	29	51	-31	29	9	14	5	5	-25	24	2	13
603	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	-393	88	-10164	1040	-164	33	-5	3	-4593	544	-835	127
604	GlcNAcb1-6(Neu5Aca2-3Galb1-3)GalNAca-Sp14	-441	77	-14330	5753	-813	693	-6	7	-7923	1865	-785	171
605	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-6(Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3)GalNAca-Sp14	68	32	160	38	11	7	21	16	145	24	43	16
606	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	542	37	313	23	38	7	27	13	380	77	56	20
607	Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	106	48	530	45	28	22	17	11	270	24	15	3
608	Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-6(Neu5Aca2-6Galb1-4GlcNAcb1-3Galb1-4GlcNAcb1-2Mana1-3)Manb1-4GlcNAcb1-4GlcNAcb-Sp12	527	42	401	28	31	33	5	4	294	23	104	12
609	GlcNAcb1-3Fuca-Sp21	21	11	4	7	15	8	5	3	14	11	9	4
610	Galb1-3GalNAcb1-4(Neu5Aca2-8Neu5Aca2-8Neu5Aca2-3)Galb1-4Glc-Sp21	9	7	10	7	22	14	9	5	7	6	12	3



**Supporting Figure 1. Generation of functional MGL-Fc recombinant proteins.** (A) Size and purity of the purified MGL-Fc variants were evaluated using a 10% SDS-PAGE gel and Coomassie Blue staining. 1  $\mu$ g of MGL-Fc protein was loaded per lane. (B) The different MGL-Fc variants were coated on ELISA plates and probed using three MGL-specific antibodies. Isotype-matched control antibodies were used as a negative control. No significant differences in binding of the antibodies to the MGL variants could be observed. One representative experiment out of three is shown.



**Supporting Figure 2. Superposition of 10 frames obtained from 1 $\mu$ s MD simulation in the free state.** (A) MGL<sup>short</sup> (MGL-His259); (B). MGL<sup>short</sup> H259T (MGL-Thr259). The rmsd (Å) values calculated from the simulations for the protein backbone are indicated for both models.



**Supporting Figure 3. Representative images of the glycan and Tn-glycopeptide arrays.** (A) Images of the CFG glycan array probed with MGL<sup>short</sup>, MGL<sup>short</sup> H259T and MGL<sup>long</sup> at a concentration of 200  $\mu\text{g/ml}$ . (B) Images of the Tn-glycopeptide array probed with MGL<sup>short</sup> and MGL<sup>short</sup> H259T at a concentration of 10  $\mu\text{g/ml}$ .