

**Supplemental Table 1.** List of glycans on the microarray

Glycan # <sup>a</sup>	Structure
1	Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
2	Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
3	NeuAca(2-3)-Galβ(1-4)-6-O-sulfo-GlcNAcβ-propyl-NH <sub>2</sub>
4	NeuAca(2-3)-Galβ(1-4)-[Fuca(1-3)]-6-O-sulfo-GlcNAcβ-propyl-NH <sub>2</sub>
5	NeuAca(2-3)-6-O-sulfo-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
6	NeuAca(2-3)-6-O-sulfo-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ-propyl-NH <sub>2</sub>
7	NeuAca(2-3)-Galβ(1-3)-6-O-sulfo-GlcNAcβ-propyl-NH <sub>2</sub>
8	NeuAca(2-3)-Galβ(1-4)-Glcβ-ethyl-NH <sub>2</sub>
9	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
10	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
11	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
12	NeuAca(2-3)-GalNAcβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
13	NeuAca(2-3)-Galβ(1-3)-GlcNAcβ-ethyl-NH <sub>2</sub>
14	NeuAca(2-3)-Galβ(1-3)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
15	NeuAca(2-3)-Galβ(1-3)-GlcNAcβ(1-3)-Galβ(1-3)-GlcNAcβ-ethyl-NH <sub>2</sub>
16	NeuAca(2-3)-Galβ(1-3)-GalNAcβ(1-3)-Gala(1-4)-Galβ(1-4)-Glcβ-ethyl-NH <sub>2</sub>
17	NeuAca(2-3)-Galβ(1-3)-GalNAca-Thr-NH <sub>2</sub>
18	NeuAca(2-3)-Galβ(1-3)-[GlcNAcβ(1-6)]-GalNAca-Thr-NH <sub>2</sub>
19	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-6)-[Galβ(1-3)]-GalNAca-Thr-NH <sub>2</sub>
20	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-6)-[Galβ(1-3)]-GalNAca-Thr-NH <sub>2</sub>
21	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-GalNAca-Thr-NH <sub>2</sub>
22	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-GalNAca-Thr-NH <sub>2</sub>
23	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-[NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-6)]-GalNAca-Thr-NH <sub>2</sub>
24	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-[NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-6)]-GalNAca-Thr-NH <sub>2</sub>
25	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
26	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
27	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
28	NeuAca(2-3)-[GalNAcβ(1-4)]-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
29	NeuAca(2-3)-[GalNAcβ(1-4)]-Galβ(1-4)-Glcβ-ethyl-NH <sub>2</sub>
30	Galβ(1-3)-GalNAcβ(1-4)-[NeuAca(2-3)]-Galβ(1-4)-Glcβ-ethyl-NH <sub>2</sub>
31	NeuAca(2-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ-propyl-NH <sub>2</sub>
32	NeuAca(2-3)-Galβ(1-3)-[Fuca(1-4)]-GlcNAcβ(1-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ-ethyl-NH <sub>2</sub>
33	NeuAca(2-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ(1-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ-ethyl-NH <sub>2</sub>
34	NeuAca(2-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ(1-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ(1-3)-Galβ(1-4)-[Fuca(1-3)]-GlcNAcβ-ethyl-NH <sub>2</sub>
35	NeuGca(2-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>

36	NeuAca(2-6)-Galβ(1-4)-6-O-sulfo-GlcNAcβ-propyl-NH <sub>2</sub>
37	NeuAca(2-6)-Galβ(1-4)-Glcβ-ethyl-NH <sub>2</sub>
38	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
39	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
40	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
41	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-[NeuAca(2-6)]-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
42	NeuAca(2-6)-GalNAcβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
43	NeuAca(2-6)-[Galβ(1-3)]-GalNAca-Thr-NH <sub>2</sub>
44	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-6)-[Galβ(1-3)]-GalNAca-Thr-NH <sub>2</sub>
45	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-6)-[Galβ(1-3)]-GalNAca-Thr-NH <sub>2</sub>
46	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-GalNAca-Thr-NH <sub>2</sub>
47	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-GalNAca-Thr-NH <sub>2</sub>
48	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-6)]-GalNAca-Thr-NH <sub>2</sub>
49	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-6)]-GalNAca-Thr-NH <sub>2</sub>
50	Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
51	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
52	GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
53	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
54	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
55	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
56	NeuGca(2-6)-Galβ(1-4)-GlcNAcβ-ethyl-NH <sub>2</sub>
57	NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>
58	NeuAca(2-6)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-3)-[NeuAca(2-3)-Galβ(1-4)-GlcNAcβ(1-2)-Manα(1-6)]-Manβ(1-4)-GlcNAcβ(1-4)-GlcNAcβ-Asn-NH <sub>2</sub>

<sup>a</sup> Glycans including nonsialylated controls (black, glycan no. 1 and 2), α2,3-linked sialosides (red, no. 3 to 35), α2,6-linked sialosides (blue, no. 36 to 56), and glycans possessing both α2,3- and α2,6-linked sialic-acids (checkered, no. 57 and 58)