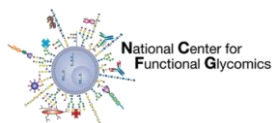


## NCFG DEFINED MODIFIED SIALYL GLYCAN ARRAY v2

#	COMMON NAME	STRUCTURE*
1	Lactose-Neu5Ac- $\alpha$ 3-Monovalent	Neu5Aca2-3Gal $\beta$ 1-4Glcitol-AEAB
2	Lactose-Neu5Gc- $\alpha$ 3-Monovalent	Neu5Gca2-3Gal $\beta$ 1-4Glcitol-AEAB
3	Lactose-Neu5Ac- $\alpha$ 6-Monovalent	Neu5Aca2-6Gal $\beta$ 1-4Glcitol-AEAB
4	Lactose-Neu5Gc- $\alpha$ 6-Monovalent	Neu5Gca2-6Gal $\beta$ 1-4Glcitol-AEAB
5	LNT-Neu5Ac- $\alpha$ 3-Monovalent	Neu5Aca2-3Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
6	LNT-Neu5Gc- $\alpha$ 3-Monovalent	Neu5Gca2-3Gal $\beta$ 1-3GlcNAc $\beta$ 2-3Gal $\beta$ 1-4Glcitol-AEAB
7	LNT-Neu5,9Ac2- $\alpha$ 3-Monovalent	Neu5,9Ac2a2-3Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
8	LNT-Neu5GcOMe- $\alpha$ 3-Monovalent	Kdn9Aca2-3Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
9	LNT-Neu5GcOMe- $\alpha$ 3-Monovalent	Neu5GcOMea2-3Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
10	LNT- Neu5Ac- $\alpha$ 6-Monovalent	Neu5Aca2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
11	LNT- Neu5Gc- $\alpha$ 6-Monovalent	Neu5Gca2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
12	LNT-Kdn- $\alpha$ 6-Monovalent	Kdna2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
13	LNT- Neu5,9Ac2- $\alpha$ 6-Monovalent	Neu5,9Ac2a2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
14	LNT-Kdn9Ac- $\alpha$ 6-Monovalent	Kdn9Aca2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
15	LNT- Neu5GcOMe- $\alpha$ 6-Monovalent	Neu5GcOMea2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
16	LNT-Kdn5Me- $\alpha$ 6-Monovalent	Kdn5Mea2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
17	LNT-Neu5Ac9Lt- $\alpha$ 6-Monovalent	Neu5Ac9Lta2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
18	LNT-Neu5GcOAc- $\alpha$ 6-Monovalent	Neu5GcOAc2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
19	LNT- Kdn5Ac- $\alpha$ 6-Monovalent	Kdn5Aca2-6Gal $\beta$ 1-3GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
20	LNnT-Neu5Ac- $\alpha$ 3-Monovalent	Neu5Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
21	LNnT-Neu5Ac8Me- $\alpha$ 3-Monovalent	Neu5Ac8Mea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
22	LNnT-Neu5Gc- $\alpha$ 3-Monovalent	Neu5Gca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
23	LNnT-Kdn- $\alpha$ 3-Monovalent	Kdna2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
24	LNnT-Neu5,9Ac2- $\alpha$ 3-Monovalent	Neu5,9Ac2a2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
25	LNnT-Neu5Gc9Ac- $\alpha$ 3-Monovalent	Neu5,9Gc2a2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
26	LNnT-Kdn9Ac- $\alpha$ 3-Monovalent	Kdn9Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
27	LNnT-Neu5Ac9Me- $\alpha$ 3-Monovalent	Neu5Ac9Mea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
28	LNnT-Neu5GcOMe- $\alpha$ 3-Monovalent	Neu5GcOMea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
29	LNnT-Kdn5Me- $\alpha$ 3-Monovalent	Kdn5Mea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
30	LNnT-Kdn7Me- $\alpha$ 3-Monovalent	Kdn7Mea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
31	LNnT-Neu5Ac9Lt- $\alpha$ 3-Monovalent	Neu5Ac9Lta2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
32	LNnT-Neu5GcOAc- $\alpha$ 3-Monovalent	Neu5GcOAc2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
33	LNnT-Kdn5Ac- $\alpha$ 3-Monovalent	Kdn5Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
34	LNnT-Kdn5,9Ac2- $\alpha$ 3-Monovalent	Kdn5,9Ac2a2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
35	LNnT-Neu5Ac- $\alpha$ 6-Monovalent	Neu5Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
36	LNnT-Neu5Ac8Me- $\alpha$ 6-Monovalent	Neu5Ac8Mea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
37	LNnT-Neu5Gc- $\alpha$ 6-Monovalent	Neu5Gca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
38	LNnT-Kdn- $\alpha$ 6-Monovalent	Kdna2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
39	LNnT-Neu5,9Ac2- $\alpha$ 6-Monovalent	Neu5,9Ac2a2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
40	LNnT-Neu5Gc9Ac- $\alpha$ 6-Monovalent	Neu5,9Gc2a2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
41	LNnT-Kdn9Ac- $\alpha$ 6-Monovalent	Kdn9Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
42	LNnT-Neu5Ac9Me- $\alpha$ 6-Monovalent	Neu5Ac9Mea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
43	LNnT-Neu5GcOMe- $\alpha$ 6-Monovalent	Neu5GcOMea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
44	LNnT-Kdn9Me- $\alpha$ 6-Monovalent	Kdn9Mea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
45	LNnT-Kdn7Me- $\alpha$ 6-Monovalent	Kdn7Mea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
46	LNnT-Neu5Ac9Lt- $\alpha$ 6-Monovalent	Neu5Ac9Lta2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
47	LNnT-Neu5GcOAc- $\alpha$ 6-Monovalent	Neu5GcOAc2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
48	LNnT-Kdn5Ac- $\alpha$ 6-Monovalent	Kdn5Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
49	LNnT-Kdn5,9Ac2- $\alpha$ 6-Monovalent	Kdn5,9Ac2a2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glcitol-AEAB
50	NA2-Neu5Ac8Me- $\alpha$ 3-Monovalent	** (Neu5Ac8Mea2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
51	NA2-Neu5Gc- $\alpha$ 3-Divalent	Neu5Gca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana2-3 (Neu5Gca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
52	NA2-Kdn- $\alpha$ 3-Divalent	Kdna3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana2-3 (Kdna2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
53	NA2-Neu5,9Ac2- $\alpha$ 3-Monovalent	** (Neu5,9Ac2a2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana2-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
54	NA2-Neu5Gc9Ac- $\alpha$ 3-Divalent	Neu5Gc9Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5Gc9Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
55	NA2-Kdn9Ac- $\alpha$ 3-Monovalent	** (Kdn9Aca2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
56	NA2-Neu5Ac9Me- $\alpha$ 3-Monovalent	** (Neu5Ac9Mea2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
57	NA2-Neu5GcOMe- $\alpha$ 3-Divalent	Neu5GcOMea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5GcOMea2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
58	NA2-Kdn9Me- $\alpha$ 3-Monovalent	** (Kdn9Mea2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
59	NA2-Kdn5Me- $\alpha$ 3-Monovalent	** (Kdn5Mea2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
60	NA2-Kdn7Me- $\alpha$ 3-Monovalent	** (Kdn7Mea2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
61	NA2-Neu5Ac9Lt- $\alpha$ 3-Divalent	Neu5Ac9Lta2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5Ac9Lta1-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
62	NA2-Neu5GcOAc- $\alpha$ 3-Monovalent	** (Neu5GcOAc2-3)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
63	NA2-Kdn5Ac- $\alpha$ 3-Divalent	Kdn5Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Kdn5Aca2-3Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
64	NA2-Neu5Ac- $\alpha$ 6-Divalent	Neu5Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
65	NA2-Neu5Ac8Me- $\alpha$ 6-Divalent	Neu5Ac8Mea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5Ac8Mea2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
66	NA2-Neu5Gc- $\alpha$ 6-Divalent	Neu5Gca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5Gca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
67	NA2-Neu5,9Ac2- $\alpha$ 6-Divalent	Neu5,9Ac2a2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5,9Ac2a2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
68	NA2-Neu5Gc9Ac- $\alpha$ 6-Divalent	Neu5Gc9Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-3 (Neu5Gc9Aca2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Mana1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB



#	COMMON NAME	STRUCTURE*
69	NA2-Neu5Ac9Me- $\alpha$ 6-Monovalent	** (Neu5Ac9Me $\alpha$ 2-6)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
70	NA2-Neu5GcOMe- $\alpha$ 6-Divalent	Neu5GcOMe $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Neu5GcOMe $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
71	NA2-Kdn9Me- $\alpha$ 6-Monovalent	** (Kdn9Me $\alpha$ 2-6)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
72	NA2-Kdn5Me- $\alpha$ 6-Monovalent	** (Kdn5Me $\alpha$ 2-6)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
73	NA2-Kdn7Me- $\alpha$ 6-Monovalent	** (Kdn7Me $\alpha$ 2-6)Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
74	NA2-Neu5Ac9Lt- $\alpha$ 6-Divalent	Neu5Ac9Lt $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Neu5Ac9Lt $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
75	NA2-Neu5GcOAc- $\alpha$ 6-Divalent	Neu5GcOAc $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Neu5GcOAc $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
76	NA2- Kdn5Ac- $\alpha$ 6-Divalent	Kdn5Ac $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3(Kdn5Ac $\alpha$ 2-6Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAcitol-AEAB
77	Lacto-N-neotetraose	Gal $\beta$ 1-4GlcNAc $\beta$ 1-3Gal $\beta$ 1-4Glc-AEAB
78	NA2 Core Structure	Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-6(Gal $\beta$ 1-4GlcNAc $\beta$ 1-2Man $\alpha$ 1-3)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAc-AEAB
79	Mannose 5	Man $\alpha$ 1-6(Man $\alpha$ 1-3)Man $\alpha$ 1-6(Man $\alpha$ 1-3)Man $\beta$ 1-4GlcNAc $\beta$ 1-4GlcNAc-AEAB

\*AEAB: 2-Amino-N-(2-amino-ethyl)-benzamide. Reducing end saccharides undergo ring opening during conjugation with AEAB.

\*\*Monosialylated, biantennary structures. Not known which branch Sialylation occurs on.