

Table S1. Complete list of glycan residues in TAG. In parentheses, we described the modification method of carboxylic acid of sialic acid.

	Name	Description
1	Hex	Hexose
2	HexNAc	<i>N</i> -acetyl hexose
3	Fuc	Fucose
4	NeuAc	<i>N</i> -acetylneuraminic acid (methylesterification)
5	NeuGc	<i>N</i> -glycolylneuraminic acid (methylesterification)
6	3-8NeuAc	α 2,3- or α 2,8-linkage of NeuAc (SALSA)
7	6NeuAc	α 2,6-linkage of NeuAc (SALSA)
8	3-8NeuGc	α 2,3- or α 2,8-linkage of NeuGc (SALSA)
9	6NeuGc	α 2,6-linkage of NeuGc (SALSA)
10	KDN	2-keto-3-deoxynonoic acid (methylesterification)
11	HSO ₃	Sulfation modification
12	Lactone	Lactonization modification of sialic acids
13	Ac	Acetylation modification
14	GlcA	Glucuronic acid (isopropylamine amination)
15	P	Phosphorylation modification