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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Figure S1. Specificity of 4F10 monoclonal antibody determined by the Glycan-array assay.

Figure S2. Tandem Mass Spectrometry detects iGb3 from isomeric mixtures after multiple rounds of fragmentation that leads to characteristic ions.

Figure S3. Precursor of fucosylated lactosylceramide in pig aortic endothelial cell membranes

Table S1. Structures recognized by the different antibodies and lectins used in the study.

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Tables

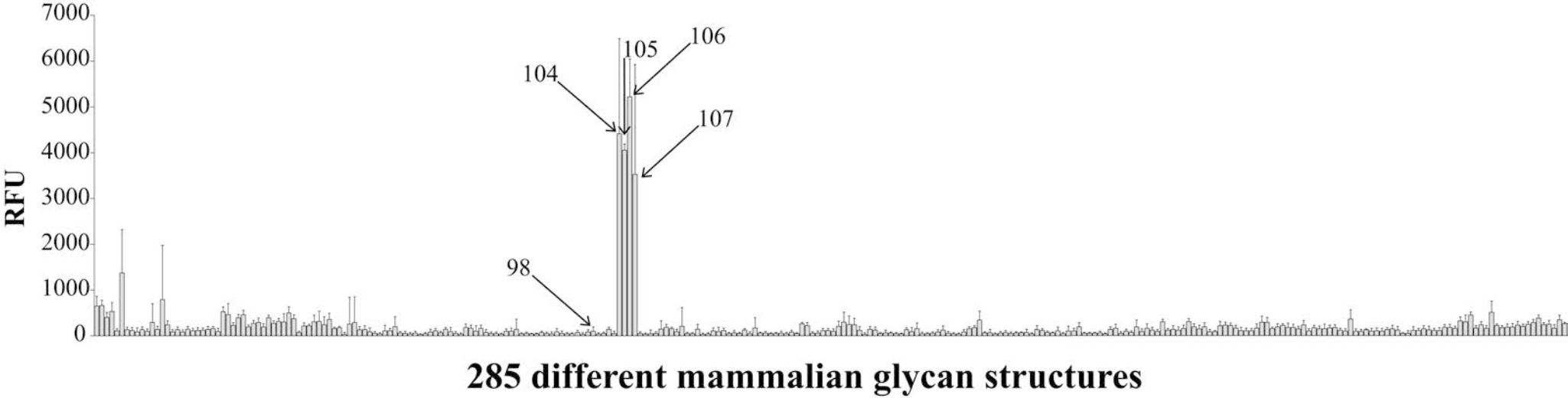
Table S1. Structures recognized by the different antibodies and lectins used in the study.

	Antigen	Epitope(s) / structure(s)*	Ref.		Antigen	Epitope(s) / structure(s)*	Ref.
4F10	αGal	Galα1,3Gal-R	(S1)	**15.101**	iGb3	Galα1,3Galβ1,4Glcβ-R	(15)
		Galα1,3Galβ1,3GlcNAcβ-R			Gb3	Galα1,4Galβ1,4Glcβ-R	(25)
		Galα1,3Galβ1,4GlcNAcβ-R					
	iGb3	Galα1,3Galβ1,4Glcβ-R	(S1)				
M86	αGal	Galα1,3Galβ1,4GlcNAc-R	M	**Hu anti-αGal**	αGal/iGb3	Galα1,3Gal-R	(14)
GT4-31	αGal	Galα1,3Gal-R	(16)	**GT6-27**	αGal	Galα1,3Gal-R	(16)
25.20	αGal	Galα1,3Gal-R	(15)	**24.7**	αGal	ND	(15)
BSI-B4	αGal	α-D-Gal*	M	**UEA-I**	H-type	L-Fuc*	M

*In case of lectins mentioned, the reagent recognises terminal sugar structures.

Abbreviations. BSI-B4: *Bandeiraea simplicifolia* lectin; Fuc: fucose; Gal: galactose; Gb3: globotrihexosylceramide 3; GlcNac: *N*-acetylglusosamine; iGb_3: isoglobotrihexosylceramide 3; M: manufacturer specifications; -R: radical; and UEA-I *Ulex europaeus* lectin.

Figure S1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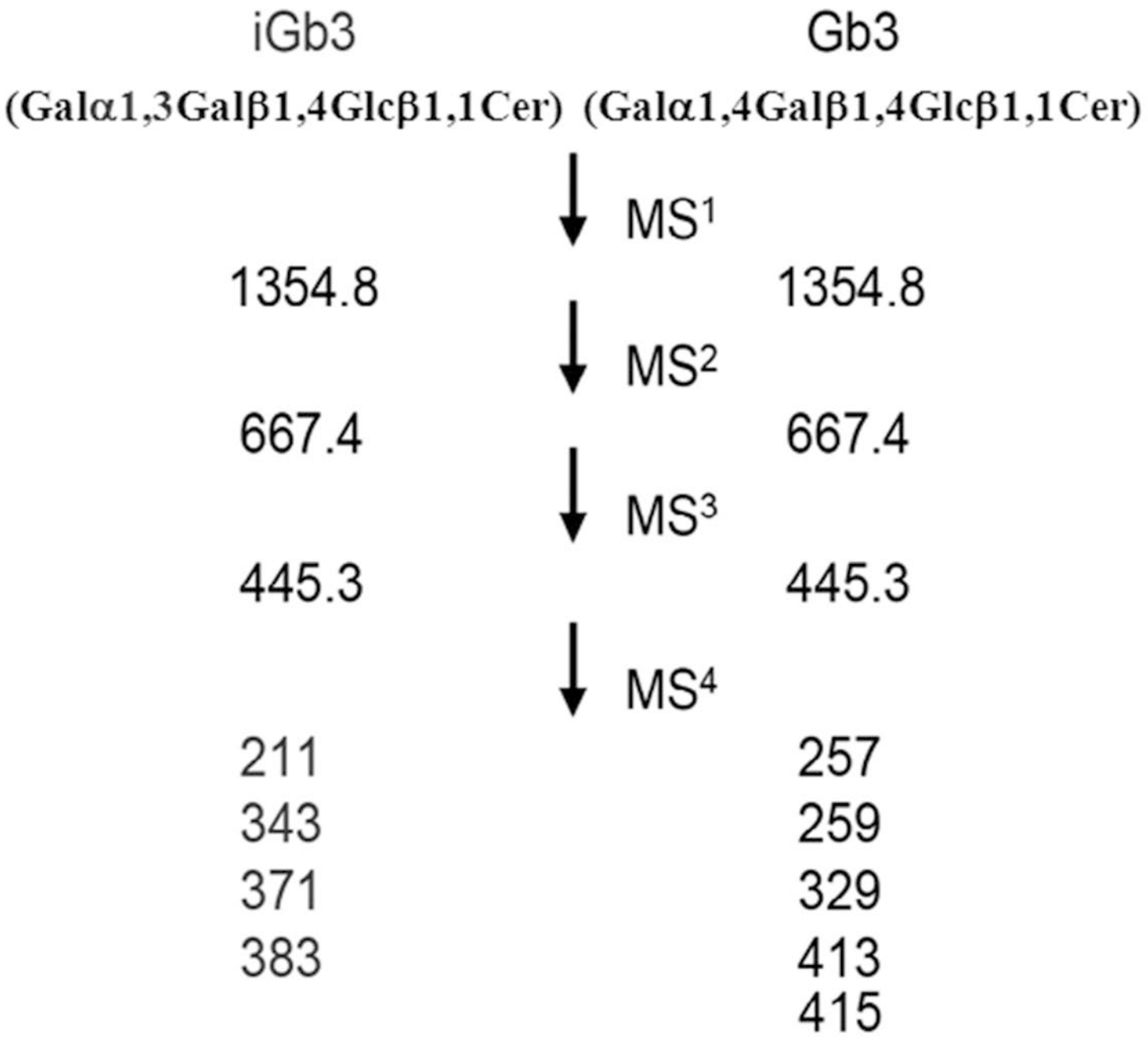
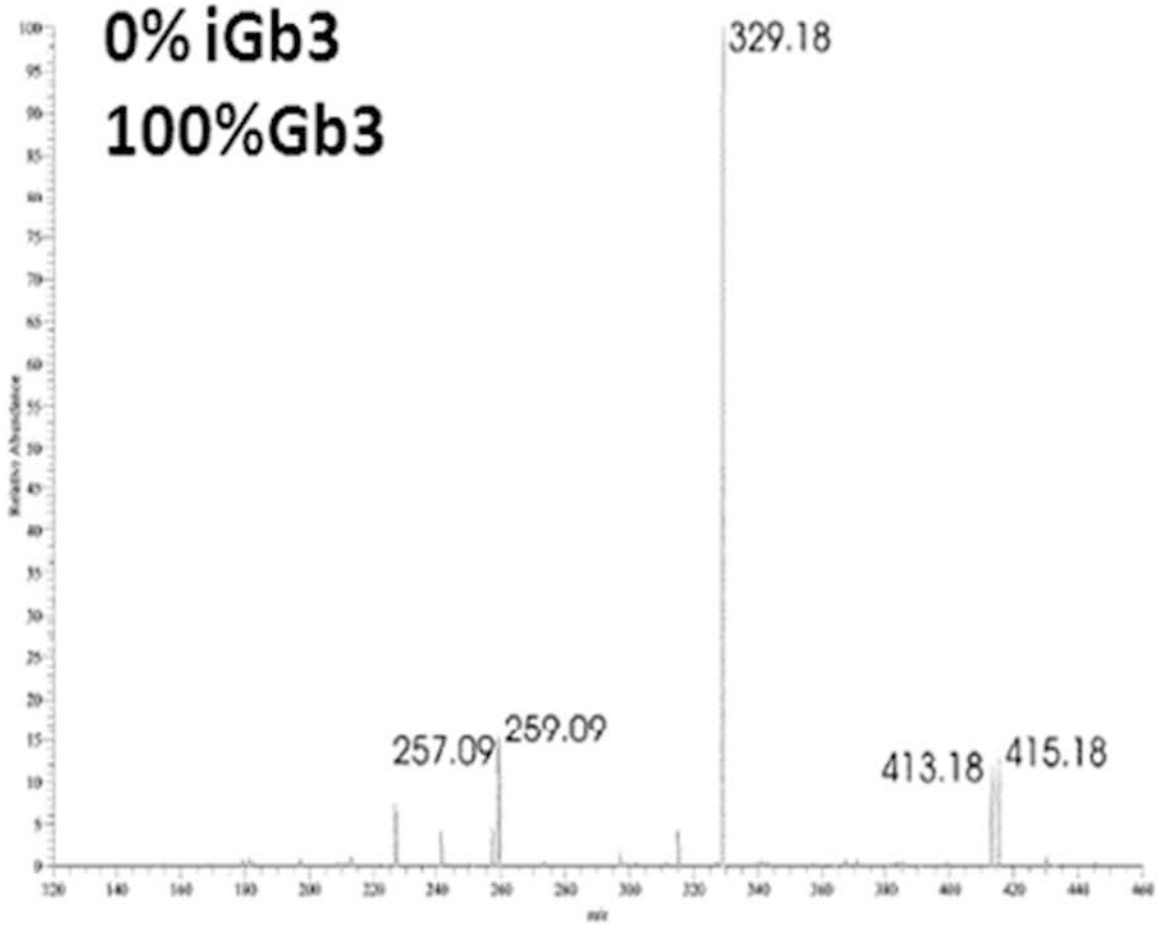
5000
4000
3000
2000
1000
0
RFU
104
105
106
107
98
285 different mammalian glycan structures


iGb3
(Galα1,3Galβ1,4Glcβ1,1Cer)
Gb3
(Galα1,4Galβ1,4Glcβ1,1Cer)
MS1
1354.8
1354.8
MS2
667.4
667.4
MS3
445.3
445.3
MS4
211
343
371
383
257
259
329
413
415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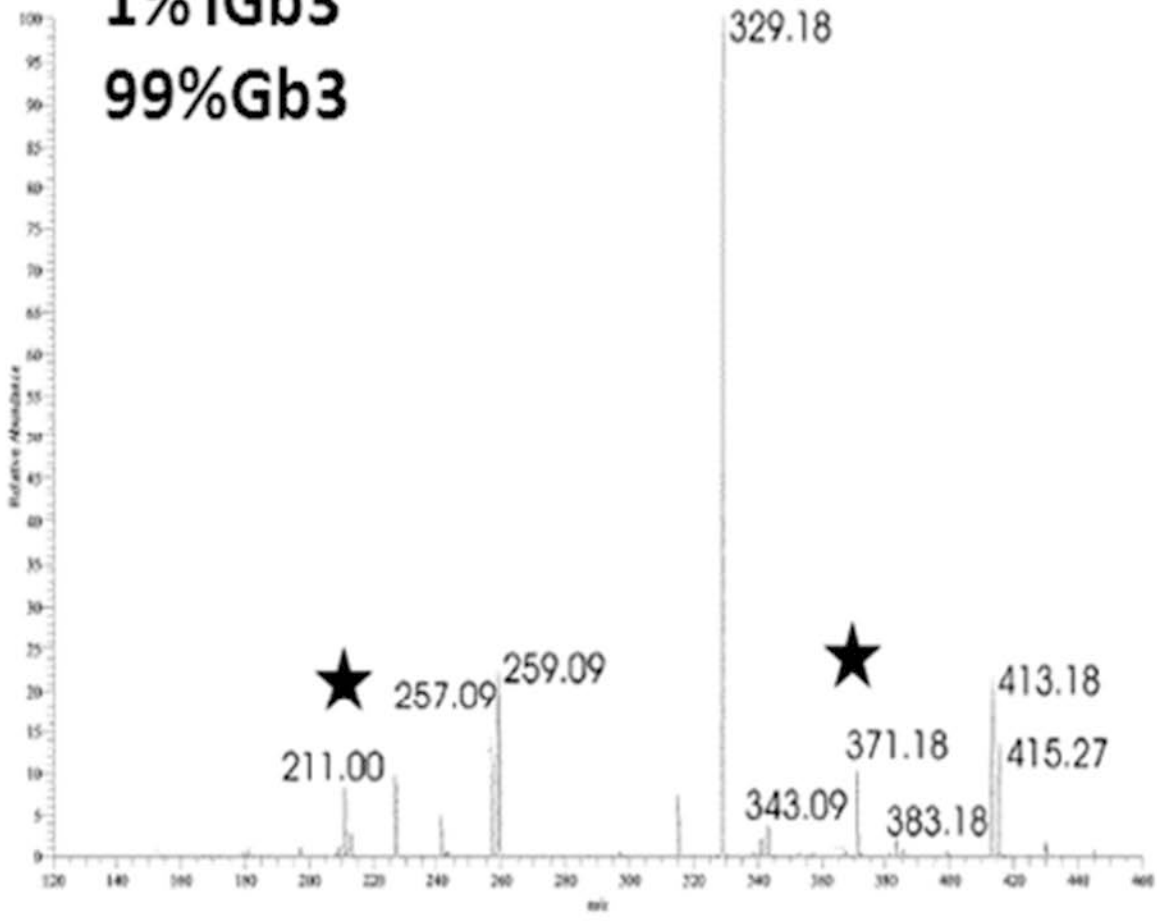
100%Gb3
329.18
257.09
259.09
413.18
415.18
Relative Abundance
m/z


1% iGb3
99%Gb3
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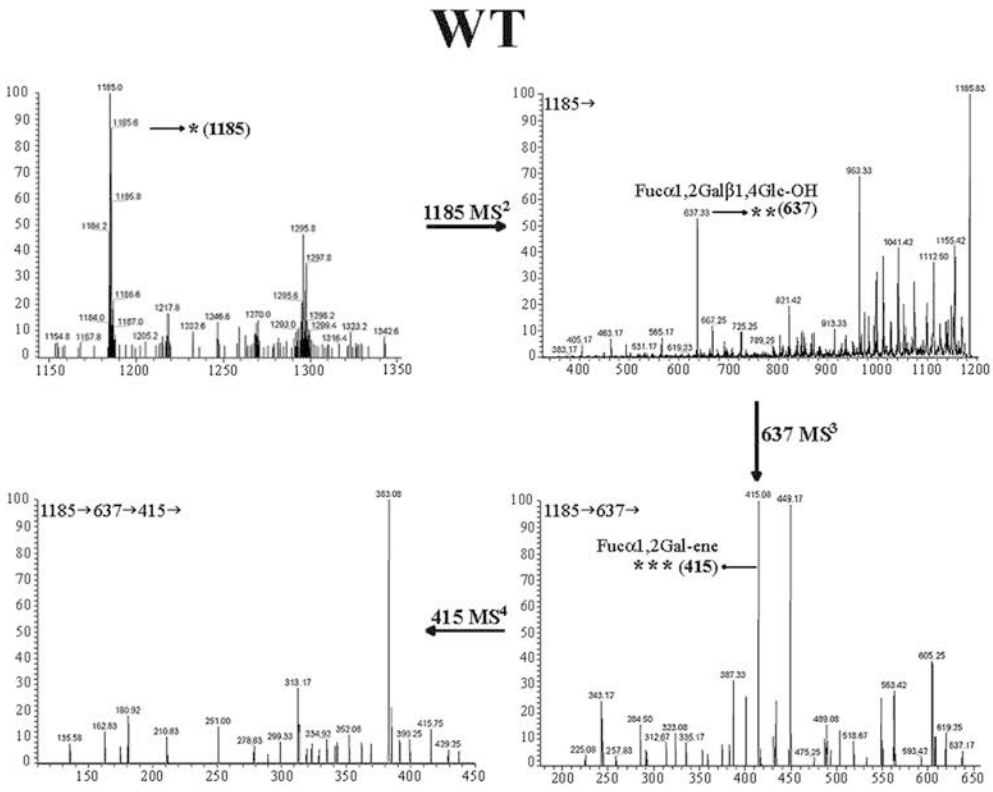
257.09
259.09
211.00
371.18
343.09
383.18
413.18
415.27
Relative Abundance
m/z

Figure S3


WT
* (1185)
1185 MS2
1185→
Fucα1,2Galβ1,4Glc-OH
** (637)
637 MS3
1185→637→
Fucα1,2Gal-ene
*** (415)
415 MS4
1185→637→415→