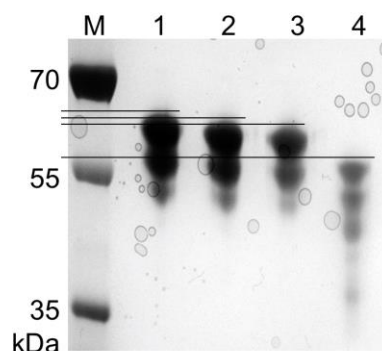


Supplementary Information

Microarray evaluation of the effects of lectin and glycoprotein orientation and data filtering on glycoform discrimination

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Figure S1



Silver stain visualization of SDS-PAGE mass shifts resulting from removal of monosaccharide constituents of bovine fetuin (Fet). Lines indicate uppermost position of each glycoform relative to the M_r standards. Fet (**Fet, Lane 1**). Products of 5 h incubation of Fet with *Vibrio cholerae* sialidase (**ASFE, Lane 2**) or sialidase and bovine testes β -galactosidase combined (**ASGF, Lane 3**). Asialofetuin produced by acid hydrolysis of sialic acid termini (**ASFA, Lane 4**). Approximately 1 μ g of each glycoform loaded per well (by Bradford estimation).

Table S1 | Lectin microarray composition list

Lectin array		Abbreviation	Origin	1 mM Print Sugar	Species	Common name	Major Ligand(s)	Source
No	Plate Pos							
1	A01	AIA, Jacalin	Plant	Gal	<i>Artocarpus integrifolia</i>	Jack fruit lectin	Gal (sialylation independent)	EY Labs
2	A02	RPbAI	Plant	Gal	<i>Robinia pseudoacacia</i>	Black locust lectin	Gal, GalNAc	EY Labs
3	A03	PA-I	Bacteria	Gal	<i>Pseudomonas aeruginosa</i>	Pseudomonas lectin	Gal, Gal derivatives	Sigma Aldrich
4	A04	SNA-II	Plant	Gal	<i>Sambucus nigra</i>	Sambucus lectin-II	Gal/GalNAc	EY Labs
5	A05	SJA	Plant	Gal	<i>Sophora japonica</i>	Pagoda tree lectin	βGalNAc	EY Labs
6	A06	DBA	Plant	Gal	<i>Dolichos biflorus</i>	Horse gram lectin	GalNAc	EY Labs
7	A07	APP	Plant	Gal	<i>Aegopodium podagraria</i>	Ground elder lectin	GalNAc	EY Labs
8	A08	SBA	Plant	Gal	<i>Glycine max</i>	Soy bean lectin	GalNAc	EY Labs
9	A09	VVA-B4	Plant	Gal	<i>Vicia villosa</i>	Hairy vetch lectin	GalNAc	EY Labs
10	A10	BPA	Plant	Gal	<i>Bauhinia purpurea</i>	Camels foot tree lectin	GalNAc/Gal	EY Labs
11	A11	WFA	Plant	Gal	<i>Wisteria floribunda</i>	Japanese wisteria lectin	GalNAc/Sulfated GalNAc	EY Labs
12	A12	ACA	Plant	Lac	<i>Amaranthus caudatus</i>	Amaranthin	Sialylated/Gal-β(1,3)-GalNAc	Vector Labs
13	A13	ABL	Fungi	Lac	<i>Agaricus bisporus</i>	Edible mushroom lectin	Gal-β(1,3)-GalNAc, GlcNAc	EY Labs
14	A14	PNA	Plant	Lac	<i>Arachis hypogaea</i>	Peanut lectin	Gal-β(1,3)-GalNAc	EY Labs
15	A15	GSL-II	Plant	GlcNAc	<i>Griffonia simplicifolia (aka Bandeiraea simplicifolia)</i>	Griffonia/Bandeiraea lectin-II	GlcNAc	EY Labs
16	A16	sWGA	Plant	GlcNAc	<i>Triticum vulgaris</i>	Succinyl WGA	GlcNAc	EY Labs
17	A17	DSA	Plant	GlcNAc	<i>Datura stramonium</i>	Jimson weed lectin	GlcNAc	EY Labs
18	A18	STA	Plant	GlcNAc	<i>Solanum tuberosum</i>	Potato lectin	GlcNAc oligomers	EY Labs
19	A19	LEL	Plant	GlcNAc	<i>Lycopersicum esculentum</i>	Tomato lectin	GlcNAcβ1-4GlcNAc	EY Labs
20	A20	NPA	Plant	Man	<i>Narcissus pseudonarcissus</i>	Daffodil lectin	α(1,6)Man	EY Labs
21	A21	GNA	Plant	Man	<i>Galanthus nivalis</i>	Snowdrop lectin	Man-α(1,3)-	EY Labs
22	A22	HHA	Plant	Man	<i>Hippeastrum hybrid</i>	Amaryllis agglutinin	Man-α(1,3)-Man-α(1,6)-	EY Labs
23	A23	ConA	Plant	Man	<i>Canavalia ensiformis</i>	Jack bean lectin	Man, Glc, GlcNAc	EY Labs
24	A24	Lch-B	Plant	Man	<i>Lens culinaris</i>	Lentil isolectin B	Man, fucose dependent	EY Labs
25	B01	PSA	Plant	Man	<i>Pisum sativum</i>	Pea lectin	Man, fucose	EY Labs

						dependent		
26	B02	WGA	Plant	GlcNAc	<i>Triticum vulgaris</i>	Wheat germ agglutinin	NeuAc/GlcNAc	EY Labs
27	B03	MAA	Plant	Lac	<i>Maackia amurensis</i>	Maackia agglutinin	Sialic acid- α (2,3)-	EY Labs
28	B04	SNA-I	Plant	Lac	<i>Sambucus nigra</i>	Sambucus lectin-I	Sialic acid- α (2,6)-	EY Labs
29	B05	PHA-L	Plant	Lac	<i>Phaseolus vulgaris</i>	Kidney bean leukoagglutinin	tri-tetraantennary β Gal/Gal- β (1,4)-GlcNAc	EY Labs
30	B06	PCA	Plant	Lac	<i>Phaseolus coccineus</i>	Scarlet runner bean lectin	GlcNAc in complex oligos?	Sigma Aldrich
31	B07	PHA-E	Plant	Lac	<i>Phaseolus vulgaris</i>	Kidney bean erythroagglutinin	biantennary, bisecting GlcNAc, β Gal/Gal- β (1,4)GlcNAc	EY Labs
32	B08	RCA-I/120	Plant	Gal	<i>Ricinus communis</i>	Castor bean lectin I	Gal- β -(1, 4)-GlcNAc	Vector Labs
33	B09	CPA	Plant	Lac	<i>Cicer arietinum</i>	Chickpea lectin	Complex glycopeptides	EY Labs
34	B10	CAA	Plant	Lac	<i>Caragana arborescens</i>	Pea tree lectin	Gal- β -(1, 4)-GlcNAc	EY Labs
35	B11	ECA	Plant	Lac	<i>Erythrina cristagalli</i>	Cocks comb/coral tree lectin	Gal- β -(1, 4)-GlcNAc oligomers	EY Labs
36	B12	AAL	Fungi	Fuc	<i>Aleuria aurantia</i>	Orange peel fungus lectin	α -Fuc (1-6)	Vector Labs
37	B13	LTA	Plant	Fuc	<i>Lotus tetragonolobus</i>	Lotus lectin	α -Fuc (1-3)	EY Labs
38	B14	UEA-I	Plant	Fuc	<i>Ulex europaeus</i>	Gorse lectin-I	α -Fuc (1-2)	EY Labs
39	B15	EEA	Plant	Gal	<i>Euonymus europaeus</i>	Spindle tree lectin	α -Gal	EY Labs
40	B16	GSL-I-B4	Plant	Gal	<i>Griffonia simplicifolia</i> (aka <i>Bandeiraea simplicifolia</i>)	Griffonia/Bandeiraea lectin-I	α -Gal	EY Labs
41	B17	MPA	Plant	Gal	<i>Maclura pomifera</i>	Osage orange lectin	α -Gal	EY Labs
42	B18	VRA	Plant	Gal	<i>Vigna radiata</i>	Mung bean lectin	α -Gal	EY Labs
43	B19	MOA	Fungi	Gal	<i>Marasmius oreades</i>	Fairy ring mushroom lectin	α -Gal	EY Labs