

Supplementary Table 1: Description of MUC1 glycoforms printed on to the slides

No on graph	Abbreviation	Sequence	Glycoform*
1	MUC1a	VTSAPDTRPAPGSTAPPAGH	N/A
2	MUC1b	APGSTAPPAHGVTSAPDTRP	N/A
3	TnMUC1a	VTSAPDT*RPAPGS*T*APPAGH	GalNAc α -
4	TnMUC1b	APGSTAPPAHGVTS*S*APDT*RP	GalNAc α -
5	STnMUC1a	VTSAPDT*RPAPGS*T*APPAGH	Neu5Ac α 2-6GalNAc α -
6	STnMUC1b	APGSTAPPAHGVTS*S*APDT*RP	Neu5Ac α 2-6GalNAc α -
7	TMUC1a	VTSAPDT*RPAPGS*T*APPAGH	Gal β 1-3GalNAc α -
8	TMUM1b	APGSTAPPAHGVTS*S*APDT*RP	Gal β 1-3GalNAc α -
9	3STMUC1a	VTSAPDT*RPAPGS*T*APPAGH	Neu5Ac α 2-3Gal β 1-3GalNAc α -
10	3STMUC1b	APGSTAPPAHGVTS*S*APDT*RP	Neu5Ac α 2-3Gal β 1-3GalNAc α -
11	C3MUC1a	VTSAPDTRPAPGS*T*APPAGH	GlcNAc β 1-3GalNAc α -
12	C3MUC1b	APGSTAPPAHGVTS*S*APDTRP	GlcNAc β 1-3GalNAc α -
13	C3S6MUC1a	VTSAPDTRPAPGS*T*APPAGH	GlcNAc β 1-3[Neu5Ac α 2-6]GalNAc α -
14	C3S6MUC1b	APGSTAPPAHGVTS*S*APDTRP	GlcNAc β 1-3[Neu5Ac α 2-6]GalNAc α -
15	LeCC3MUC1a	VTSAPDTRPAPGS*T*APPAGH	Gal β 1-3GlcNAc β 1-3GalNAc α -
16	LeCC3MUC1b	APGSTAPPAHGVTS*S*APDTRP	Gal β 1-3GlcNAc β 1-3GalNAc α -
17	SLeCC3MUC1a	VTSAPDTRPAPGS*T*APPAGH	Neu5Ac α 2-3Gal β 1-3GlcNAc β 1-3GalNAc α -
18	SLeCC3MUC1b	APGSTAPPAHGVTS*S*APDTRP	Neu5Ac α 2-3Gal β 1-3GlcNAc β 1-3GalNAc α -
19	LeCC3S6MUC1a	VTSAPDTRPAPGS*T*APPAGH	Gal β 1-3GlcNAc β 1-3 [Neu5Ac α 2-6]GalNAc α -
20	LeCC3S6MUC1b	APGSTAPPAHGVTS*S*APDTRP	Gal β 1-3GlcNAc β 1-3 [Neu5Ac α 2-6]GalNAc α -
21	C3MUC1aPDTR	VTSAPDT*RPAPGSTAPPAGH	GlcNAc β 1-3GalNAc α -
22	C3MUC1-60mer	[VT*SAPDTRPAPGS*T*APPAGH] ₃	GlcNAc β 1-3GalNAc α -
23	REC-MUC1		N/A
24	REC-TnMUC1		GalNAc α -
25	REC-TMUC1		Gal β 1-3GalNAc α -
26	REC-STMUC1		Neu5Ac α 2-3Gal β 1-3GalNAc α -
27	C3-Threonine		GlcNAc β 1-3GalNAc α -Thr
28	STn- Threonine		Neu5Ac α 2-6GalNAc α -Thr

* Indicates sites of glycosylation

Rec- Indicates recombinant full length MUC1 produced in CHO cells (REC-TMUC1 and REC-STMUC1 or IdID CHO cells (REC-MUC1 and REC-TnMUC1)