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## **Glycosylation profiling with mass spectrometry: method development and application to cancer biomarker studies**

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# Appendices

## Abbreviations

ACN	acetonitrile
AGP	$\alpha$ -1-acid glycoprotein
Asn	asparagine
AUC	area under curve
BSM	bovine submaxillary glands
CA	carbohydrate antigen
CE	capillary electrophoresis
CEA	carcinoembryonic antigen
CEX	cation-exchange
CI	confidence intervals
CID	collision-induced dissociation
DBS	dried blood spot
DCC	<i>N,N'</i> -dicyclohexylcarbodiimide
DCIS	ductal carcinoma in situ
DHB	2,5-dihydrobenzoic acid
DIC	<i>N,N'</i> -diisopropylcarbodiimide
DNA	deoxyribonucleic acid
DPS	dried plasma spots
DTT	DL-Dithiothreitol
EDC	1-ethyl-3-(3-dimethylamino)propyl carbodiimide
ER	endoplasmic reticulum
ESI	electrospray ionization
FTICR	Fourier-transform ion cyclotron resonance
Fuc	fucose
FBS	fetal bovine serum
Gal	galactose
GalNAc	<i>N</i> -acetylgalactosamine
GlcNAc	<i>N</i> -acetylglucosamine
GuHCl	guanidine hydrochloride
HILIC	hydrophilic interaction liquid chromatography
HOBt	1-hydroxybenzotriazole
HT	high-throughput
IPMN	intraductal papillary mucinous neoplasms
IR	infrared

LC	liquid chromatography
LIF	laser-induced fluorescence detection
LLE	liquid-liquid extraction
LTR	lifetime risk
MALDI	matrix-assisted laser desorption/ionization
Man	mannose
MQ	milli-Q water
MRI	magnetic resonance imaging
MS	mass spectrometry
NET	neuroendocrine tumors
MTP	microtitration plate
Neu5Ac	<i>N</i> -acetylneuraminic acid
NMR	nuclear magnetic resonance
NP-40	nonidet P-40 substitute
OR	odds ratio
PDAC	pancreatic ductal adenocarcinomas
PGC	porous graphitized carbon
PNGase F	peptide- <i>N</i> -glycosidase F
PTM	post-translational modification
QC	quality control
RNA	ribonucleic acid
ROC	receiver operating characteristic
RP	resolving power <i>or</i> reversed phase
RSD	relative standard deviation
SD	standard deviation
SDS	sodium dodecyl sulfate
sLe	sialyl Lewis antigens
SPE	solid phase extraction
TFA	trifluoroacetic acid
TLC	thin layer chromatography
TOF	time of flight
TSNG	total serum <i>N</i> -glycome