Glyco(proteo)mic workflows for cancer biomarker discovery

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Appendices

List of Abbreviations

English Summary

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Acknowledgements

List of Abbreviations

2-AA	2-Aminobenzoic acid
2-AB	2 Aminobenzamide
2-PA	2-Aminopyridine
AAL	Aleuria aurantia lectin
AGP	Alpha-1-acid glycoprotein
Ala	Alanine (A)
Am	Amidated α2,3-linked *N*-acetylneuraminic acid
Arg	Arginine (R)
Asn	Asparagine (N)
AUC	Area under the curve
BFS	Bare fused silica
BGE	Background electrolyte
BPH	Benign prostate hyperplasia
BPSA	Benign prostate-specific antigen
CE	Capillary electrophoresis
CEA	Carcinoembryonic antigen
CESI	Capillary electrophoresis-electrospray ionization
CID	Collision-induced dissociation
CRC	Colorectal cancer
CV	Coefficient of variation
CZE	Capillary zone electrophoresis
DEN	Dopant enriched nitrogen
DMT-MM	4-(4,6-Dimethoxy-1,3,5-triazin-2-yl)-4-methyl morpholinium chloride
DRE	Digital rectal examination
DTT	Dithiothreitol
E	Ethyl esterified α2,6-linked *N*-acetylneuraminic acid
EDC	1-ethyl-3-(3-(dimethylamino) propyl) carbodiimide
EDTA	Ethylenediaminetetraacetic acid
EEA	Ethyl esterification and amidation
EIC	Extracted ion chromatogram
EIE	Extracted ion electropherogram
ELISA	Enzyme-linked immunosorbent assay
EOF	Electroosmotic flow
ER	Endoplasmic reticulum
ESI	Electrospray ionization
ETD	Electron-transfer dissociation
EtOH	Ethanol
F	Fucose
FA	Formic acid
FcγRIIIA	Fc-gamma receptor IIIA
FDA	Food and Drug Administration
FLR	Fluorescence
FWHM	Full width half maximum
GalNAc	*N*-acetylgalactosamine
GlcNAc	*N*-acetylglucosamine
Glu	Glutamate (E)

Gly	Glycine (G)
H	Hexose
HAc	Glacial acetic acid
HCl	Hydrochloric acid
HILIC	Hydrophilic interaction liquid chromatography
HOBt	Hydrate 1-hydroxybenzotriazole
HPAEC-PAD	High-pH/performance anion-exchange chromatography-pulsed anomeric detection
i.d	Internal diameter
IAA	Iodoacetamide
ICC	Ion charge control
IMS	Ion-mobility mass spectrometry
KLK	Kallikrein
LC	Liquid chromatography
LLOQ	Lower limit of quantification
LST	Sialyllacto-*N*-tetraose
Lys	Lysine (K)
m/z	Mass to charge ratio
MALDI	Matrix-assisted laser desorption ionization
MGAT	*N*-acetylglucosaminyl transferase
MQ	Milli-Q deionized water
MRM	Multiple reaction monitoring
MS	Mass spectrometry
MS/MS	Tandem mass spectrometry
N	*N*-acetylhexosamine
NaCl	Sodium chloride
NaOH	Sodium hydroxide
o.d	Outer diameter
PBM	Protein Binding Membrane
PBS	Phosphate buffered saline
PCa	Prostate cancer
PCA	Principal component analysis
PCR	Polymerase chain reaction
PEI	Polyethylenimine
PGC	Porous graphitized carbon
pH	Potential of Hydrogen
Phe	Phenylalanine (F)
PNGase F	Peptide-*N*-glycosidase F
Pro	Proline (P)
PROC	Procainamide
proPSA	Precursor protein of prostate-specific antigen
PSA	Prostate-specific antigen
PTM	Post-translational modification
QTOF	Quadrupole time-of-flight
RNA	Ribonucleic acid
ROC	Receiver operating characteristic
RPLC	Reversed-phase liquid chromatography
RSD	Relative standard deviation
RT	Retention time
S	Sialic acid
S/N	Signal-to-noise ratio

SDS-PAGE	Sodium dodecyl-sulfate polyacrylamide gel electrophoresis
Ser	Serine (S)
Thr	Threonine (T)
UHPLC	Ultra-high performance liquid chromatography
UHRMS	Ultra-high resolution mass spectrometry
UPLC	Ultra performance liquid chromatography
UV	Ultraviolet
XIC	Extracted ion chromatogram
XIE	Extracted ion electropherogram