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Lab-on-a-tissue : optimization of on-tissue chemistry for improved mass spectrometry imaging

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APPENDIX

List of abbreviations

9-AA	9-aminoacridine		
ACN	Acetonitrile	LAESI	Laser ablation electrospray ionization
ADC	Adenocarcinoma		
APCI	Atmospheric pressure chemical ionization	LC	Liquid chromatography
CE	Capillary electrophoresis	LESA	Liquid extraction surface analysis
CEA	Carcinoembryonic antigen	LLO	Lipid-linked oligosaccharide
CHCA	α -cyano-4-hydroxycinnamic acid	LMJ-SSP	Liquid microjunction surface sampling
CID	Collision-induced dissociation	LMS	Leiomyosarcoma
CMC	Carboxymethyl cellulose	LPS	Liposarcoma
COX7A	Cytochrome C oxidase 7A2	MALDI	Matrix-assisted laser desorption/ionization
CRC	Colorectal carcinoma		
CSV	Comma-separated values	MAP6	Microtubule associated protein 6
Da	Dalton		
DC	Direct current	MBP	Myelin basic protein
DESI	Desorption electrospray ionization	MFS	Myxofibrosarcoma
DHB	2,5-dihydroxybenzoic acid	MLS	Myxoid liposarcoma
DSC	Dice similarity coefficient	MMP2	Matrix metalloproteinase 2
DTT	Dithiothreitol	mmu	Millimass units
ECM	Extracellular matrix	MRM	Multi reaction monitoring
EDD	Electron-detachment dissociation	MS	Mass spectrometry
EDTA	Ethylenediaminetetraacetic acid	MSI	Mass spectrometry imaging
ER	Endoplasmic reticulum	MS/MS	Tandem mass spectrometry
ESI	Electrospray ionization	MWCO	Molecular weight cut off
ETD	Electron-transfer dissociation	MYX	Myxoid MLS
FA	Formic acid	m/z	mass-to-charge ratio
FDR	False discovery rate	NETD	Negative electron transfer dissociation
FFPE	Formalin-fixed paraffin embedded	NSCLC	Non-small cell lung cancer
FID	Free-induction-decay	OCT	Optimal cutting temperature
FT	Fourier transform	OS	Osteosarcoma
FTICR	Fourier transform ion cyclotron resonance	PC	Phosphatidylcholines
FTMS	Fourier transform mass spectrometry	PEG	Polyethylene glycol
GnT-V	<i>N</i> -acetylglucosaminyl-transferase V	PEV	Polyethylene vinyl
HCD	Higher-energy collisional dissociation	pHPMA	Poly[<i>N</i> -(2-hydroxy-propyl)-methacryl-amide]
H&E	Haematoxylin & eosin staining	PIK3CA	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid	PNGase F	Peptide <i>N</i> -glycosidase F
HG-MSI	Histology-guided mass spectrometry imaging	ppm	Parts-per-million
HIAR	Heat-induced antigen retrieval	PTEN	Phosphatase and tensin homolog
HILIC	Hydrophilic interaction liquid chromatography	qTOF	Quadrupole-time-of-flight
HRAM	High-resolution, accurate mass	RC	Round cell MLS
ICR	Ion cyclotron resonance	RF	Radio frequency
IGF1R	Insulin-like growth factor 1 receptor	ROI	Region of interest
IHC	Immunohistochemistry	SA	Sinapic acid
ILRS	Isotopically-labeled reference standard	SIMS	Secondary ion mass spectrometry
IMS	Ion mobility separation	S/N	Signal-to-noise
INT	Intermediate grade MLS	SPE	Solid phase extraction
IRMPD	Infrared multi-photon dissociation	SPTN1	Spectrin-1
ITO	Indium-tin-oxide	SqCC	Squamous cell carcinoma
		STS	Soft tissue sarcoma
		TCEP	Tris(2-carboxyethyl)phosphine
		TFA	Trifluoroacetic acid
		TG	Triglyceride lipids
		TMA	Tissue microarray
		TOF	Time-of-flight
		TSP2	Thrombospondin-2
		UPS	Undifferentiated pleomorphic sarcoma