

Sample Preparation and Relative Quantitation using Reductive Methylation of Amines for Peptidomics Studies

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Materials

Name	Company	Catalog Number	Comments
10 kDa cut-off filters	Merck Millipore	UFC801024	Amicon Ultra-4, PLGC Ultracel-PL Membrane, 10 kDa
Acetone	Sigma-Aldrich	179124	
Acetonitrile	Sigma-Aldrich	1000291000	
Ammonium bicarbonate	Sigma-Aldrich	11213	
analytical column (EASY-Column)	EASY-Column	(SC200)	10 cm, ID75 µm, 3 µm, C18-A2
Ethyl 3-aminobenzoate methanesulfonate	Sigma-Aldrich	E10521	MS-222
Fluorescamine	Sigma-Aldrich	F9015	
Formaldehyde solution	Sigma-Aldrich	252549	
Formaldehyde- ¹³ C, d ₂ , solution	Sigma-Aldrich	596388	
Formaldehyde-d ₂ solution	Sigma-Aldrich	492620	
Formic acid	Sigma-Aldrich	33015	
Fume hood	Quimis	Q216	
Hydrochloric acid - HCl	Sigma-Aldrich	258148	
LoBind-Protein retention tubes	Eppendorf	EP0030108116-100EA	
LTQ-Orbitrap Velos	Thermo Fisher Scientific	LTQ Velos	
Microwave oven	Panasonic	NN-ST67HSRU	
n Easy-nLC II nanoHPLC	Thermo Fisher Scientific	LC140	
PEAKS Studio	Bioinformatics Solutions Inc.	VERSION 8.5	
Phosphate-buffered saline	Invitrogen	3002	tablets
precolumn (EASY-Column)	Thermo Fisher Scientific	(SC001)	2 cm, ID100 µm, 5 µm, C18-A1
Refrigerated centrifuge	Hermle	Z326K	for conical tubes
Refrigerated centrifuge	Vision	VS15000CFNII	for microtubes
Reversed-phase cleanup columns (Oasis HLB 1 cc Cartridge)	Waters	186000383	Oasis HLB 1 cc Cartridge
Sodium cyanoborodeuteride - NaBD ₃ CN	Sigma-Aldrich	190020	

Sodium cyanoborohydride - NaBH ₃ CN	Sigma-Aldrich	156159	
Sodium phosphate dibasic	Sigma-Aldrich	S9763	NOTE: 0.2 M PB= 0.1 M phosphate buffer pH 6.8 (26.85 mL of Na ₂ HPO ₃ 1M) plus 0.1 M phosphate buffer pH 6.8 (23.15 mL of NaH ₂ PO ₃ 1M) to 250 ml of water
Sodium phosphate monobasic	Sigma-Aldrich	S3139	
Sonicator	Qsonica	Q55-110	
Standard peptide	Proteimax		amino acid sequence: LTLRTKL
Triethylammonium buffer - TEAB 1 M	Sigma-Aldrich	T7408	
Trifluoroacetic acid - TFA	Sigma-Aldrich	T6508	
Ultra purified water	Milli-Q	Direct-Q 3UV	
Vacuum centrifuge	GeneVac	MiVac DNA concentrator	
Water bath	Cientec	266	
Xcalibur Software	ThermoFisher Scientific	OPTON-30965	