

Materials List for:

Enhanced Sample Multiplexing of Tissues Using Combined Precursor Isotopic Labeling and Isobaric Tagging (cPILOT)

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URL: <https://www.jove.com/video/55406>

DOI: [doi:10.3791/55406](https://doi.org/10.3791/55406)

Materials

Name	Company	Catalog Number	Comments
Water - MS Grade	Fisher Scientific	W6-4	4 L quantity is not necessary
Acetonitrile - MS Grade	Fisher Scientific	A955-4	4 L quantity is not necessary
Acetic Acid	J.T. Baker	9508-01	
Ammonium hydroxide solution (28 - 30%)	Sigma Aldrich	320145-500ML	
Ammonium formate	Acros Organics	208-753-9	
Formic Acid	Fluka Analytical	94318-250ML-F	
BCA protein assay kit	Pierce Thermo Fisher Scientific	23227	
Urea	Biorad	161-0731	
Tris	Biorad	161-0716	
Dithiothreitol (DTT)	Fisher Scientific	BP172-5	
Iodoacetamide (IAM)	Acros Organics	144-48-9	
L-Cysteine	Sigma Aldrich, Chemistry	168149-25G	
L-1-tosylamido-2 phenylethyl cholormethyl ketone (TPCK)-treated Trypsin from bovine pancreas	Sigma Aldrich, Life Science	T1426-100MG	
Formaldehyde (CH ₂ O) solution; 36.5 - 38% in H ₂ O	Sigma Aldrich, Life Science	F8775-25ML	
Formaldehyde (¹³ CD ₂ O) solution; 20 wt % in D ₂ O, 98 atom % D, 99 atom % ¹³ C	Sigma Aldrich, Chemistry	596388-1G	
Sodium Cyanoborohydride; reagent grade, 95%	Sigma Aldrich	156159-10G	
Sodium Cyanoborodeuteride; 96 atom % D, 98% CP	Sigma Aldrich, Chemistry	190020-1G	
Strong Cation Exchange (SCX) spin tips sample prep kit	Protea BioSciences	SP-155-24kit	
Triethyl ammonium bicarbonate (TEAB) buffer	Sigma Aldrich, Life Science	T7408-100ML	
Isobaric Tagging Kit (TMT 6 plex) - 6 reactions (1 x 0.8 mg)	Thermo Fisher Scientific	90061	
Hydroxylamine hydrochloride	Sigma Aldrich, Chemistry	255580-100G	
Standard vortex mixer	Fisher Scientific	2215365	any mixer can be used
Oasis HLB 1 cc (10 mg) extraction cartridges	Waters	186000383	These are C ₁₈ cartridges

Visiprep SPE vacuum manifold, DL (disposable liner), 24 port model	Sigma Aldrich	57265	A 12 port model is also sufficient
Speed-vac	Thermo Scientific	SPD1010	any brand of speed vac is sufficient
Water bath chamber	Thermo Scientific	2825/2826	Any brand of a water bath chamber with controlled temperatures is sufficient.
Mechanical Homogenizer (<i>i.e.</i> FastPrep-24 5G)	MP Biomedicals	116005500	
Eksigent Nano LC - Ultra 2D with Nano LC AS-2 autosampler	Sciex	-	This model is no longer available. Any nano LC with an autosampler is sufficient.
LTQ Orbitrap Velos Mass Spectrometer	Thermo Scientific	-	This model is no longer available. Other high resolution instruments (<i>e.g.</i> Orbitrap Elite, Orbitrap Fusion, or Orbitrap Fusion Lumos) can be used.
Protein software (<i>e.g.</i> Proteome Discoverer)	Thermo Scientific	IQLAAEGABSAKJMAUH	
Analytical balance	Mettler Toledo	AL54	
Stir plate	VWR	12365-382	Any brand of stir plates are sufficient
pH meter (Tris compatible)	Fisher Scientific (Accumet)	13-620-183	Any brand of a pH meter is sufficient
pH 10 buffer	Fisher Scientific	06-664-261	Any brand of pH buffer 10 is sufficient
pH 7 buffer	Fisher Scientific	06-664-260	Any brand pH buffer 7 is sufficient
1.5 mL eppendorf tubes, 500 pk	Fisher Scientific	05-408-129	Any brand of 1.5 mL eppendorf tubes are sufficient
0.6 mL eppendorf tubes, 500 pk	Fisher Scientific	04-408-120	Any brand of 0.6 mL eppendorf tubes are sufficient
0.65 µm Ultrafree MC DV centrifugal filter units	EMD Millipore	UFC30DV00	
2 mL microcentrifuge tubes, 72 units	Thermo Scientific	69720	
C ₁₈ packing material (5 µm, 100 Å)	Bruker	PM5/61100/000	This item is no longer available from Bruker. Alternative packing material with listed specifications will be sufficient
C ₁₈ packing material (5 µm, 200 Å)	Bruker	PM5/61200/000	This item is no longer available from Bruker. Alternative packing material with listed specifications will be sufficient