

Materials List for:

The MPLEx Protocol for Multi-omic Analyses of Soil Samples

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Materials

Name	Company	Catalog Number	Comments
Chloroform	Sigma-Aldrich	650498	Stored at -20°C !Caution chloroform has acute potential health effects, skin irritation and possible chemical burns, irritation to the respiratory system, may affect the kidneys, liver, heart. Wear suitable protective glasses, clothing and gloves, work in a fume hood.
Methanol	Sigma-Aldrich	34860	Stored at -20°C !Caution Methanol may cause respiratory tract, skin and eye irritation, may damage the nerves, kidneys and liver. Wear suitable protective glasses, clothing and gloves, work in a fume hood.
Purified water from Millipore	Milli-Q		Water purification system.
Sodium dodecyl sulfate	Sigma-Aldrich	L6026	!Caution SDS causes acute toxicity and is flammable. It is a skin, eye and airway irritant. Wear gloves and safety glasses.
Soil protein extraction kit	MoBio, NovPure Soil Protein Extraction Kit, Qiagen	30000-20	
DL-dithiothreitol	Sigma-Aldrich	43815	
1M Trizma HCL	Sigma-Aldrich	T2694	
Trichloroacetic acid	Sigma-Aldrich	T0699	!Caution TCA is caustic, toxic and may cause skin burns. Wear gloves and safety glasses.
Acetone	Sigma-Aldrich	650501	Stored at -20°C !Caution Acetone may cause respiratory tract and skin and eye irritation. Flammable liquid and vapor. Wear safety glasses gloves and a lab coat, work in a fume hood.
Urea	Sigma-Aldrich	208884	!Caution Urea is an eye and skin irritant, use gloves and safety glasses
Ammonium bicarbonate	Fluka	09830	
Trypsin	Promega	V528A	20µg vials
Bicinchoninic acid protein assay kit	Pierce	23227	
Ammonium Formate	Sigma-Aldrich	09735	
Acetonitrile	Sigma-Aldrich	34998	!Caution Acetonitrile is a skin and eye irritant. Highly flammable.

			Wear gloves and safety glasses. Work in a fume hood.
Trifluoroacetic acid	Sigma-Aldrich	T6508	!Caution TFA is extremely hazardous in case of skin contact, eye contact, ingestion and inhalation. May produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Wear gloves, lab coat, safety glasses and work in a fume hood.
Methoxyamine hydrochloride	Sigma-Aldrich	226904	!Caution Methoxyamine hydrochloride causes severe burns and serious damage to eyes, may cause sensitization by skin contact. Wear safety glasses, gloves and lab coat, work in a fume hood.
Pyridine	Sigma-Aldrich	270970	!Caution Pyridine can cause skin and eye irritation, central nervous system depression. Vapor may cause flash fire. Wear safety glasses, gloves and lab coat, work in a fume hood.
N-Methyl-N-(trimethylsilyl)trifluoroacetamide with 1% trimethylchlorosilane	Sigma-Aldrich	69478	!Caution MSTFA + 1% TMCS can cause skin corrosion, serious eye damage and specific target organ toxicity. Flammable liquid and vapor. Wear safety glasses, gloves and lab coat, work in a fume hood.
Potassium chloride	Sigma-Aldrich	P9541	
Milli-Q water purification system	Millipore		model MPGP04001
Vortex	Scientific Industries	SI-0236	Vortex Genie 2
Probe sonicator	FisherBrand		model FB505
Refrigerated centrifuge	Eppendorf		model 5810R
50mL tube swinging bucket rotor	Eppendorf	A-4-44	
50mL fixed angle rotor	Eppendorf	FA-45-6-30	
Balance	OHAUS		model V22PWE150IT
Serological pipette controller	Eppendorf	12-654-100	
10mL, 25mL glass serological pipettes	FisherBrand	13-678-27F, 13-678-36D	
Thermomixer with Thermotop	Eppendorf	5382000015, 5308000003	
0.9 – 2.0 mm blend stainless steel beads	NextAdvance	SSB14B	
0.15 mm garnet beads	MoBio	13122-500	
Magnetic stir plate	FisherBrand	11-100-16SH	
Magnetic stir bar	FisherBrand	14512130	
pH paper strips, pH range 0–14	FisherBrand	M95903	
15mL, 50mL conical polypropylene centrifuge tube	Genesee Scientific	21-103 21-108	chloroform compatible
50mL vortex attachment	MoBio	13000-V1-50	
Ice bucket	FisherBrand	02-591-44	
27.25x70mm glass vials	FisherBrand	03-339-22K	
Breathe Easier plate membranes	Midwest Scientific	BERM-2000	
Alcohol wipes	Diversified Biotech	BPWP-1000	

Heater shaker incubator	Benchmark, Incu-Shaker Mini		
Analog rotisserie tube rotator	SoCal BioMed, LLC	82422001	
Filter-Aided-Sample-Prep kit	FASP; Expedeon	44250	
Microplate reader	Biotek, EPOCH		
-20 Degree Celsius Freezer	Fisher	13986149	
-80 Degree Celsius Freezer	Stirling Ultracold	SU780UE	
Q-Exactive ion trap mass spectrometer	Thermo Scientific		
Agilent 7890A gas chromatograph coupled with a single quadrupole 5975C mass spectrometer	Agilent Technologies, Inc.		
LIT-Orbitrap Volo	Thermo Scientific		
Waters NanoEquity™ UPLC system	Millford, MA		
250mL media bottle	FisherBrand	1395-250	
Waters vial	Waters	186002805	
Glass MS sample vial and inserts	MicroSolv	9502S-WCV, 9502S-02ND	
Glass HPLC vial and snap caps	MicroSolv	9512C-0DCV, 9502C-10C-B	
HPLC 96-well plate	Agilent	5042-6454	
Large glass vial 27.25x70mm	FisherBrand	03-339-22K	
Lyophilizer	Labconco	7934021	
Polished stainless steel flat head spatula	Spoonula; FisherBrand	14-375-10	
Kim wipes	Kimberly-Clark	34721	
XBridge C18, 250x4.6 mm, 5 µM with 4.6x20 mm guard column	Waters	186003117, 186003064	
Agilent 1100 series HPLC system	Agilent Technologies	G1380-90000	
1.7mL centrifuge tube	Sorenson	11700	
Hamilton Glass Syringes, 5mL, 50µL and 250µL	Hamilton	81517, 80975, 81175	
Pasteur Pipettes	FisherBrand	13-678-20A	
Pasteur Pipette Bulbs	Sigma-Aldrich	Z111597	
Bath Sonicator	Branson 1800 Ultrasonic Cleaner		
Vacuum Centrifuge	Labconco Centrivap Acid-Resistant Concentrator System		
MicroSpin Columns, C18 Silica	The Nest Group	SEM SS18V	