Materials List for:
The MPLEx Protocol for Multi-omic Analyses of Soil Samples

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*These authors contributed equally

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<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Catalog Number</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroform</td>
<td>Sigma-Aldrich</td>
<td>650498</td>
<td>Stored at -20°C</td>
</tr>
<tr>
<td>Methanol</td>
<td>Sigma-Aldrich</td>
<td>34860</td>
<td>Stored at -20°C</td>
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<tr>
<td>Purified water from Millipore</td>
<td>Milli-Q</td>
<td></td>
<td>Water purification system.</td>
</tr>
<tr>
<td>Sodium dodecyl sulfate</td>
<td>Sigma-Aldrich</td>
<td>L6026</td>
<td>Caution SDS causes acute toxicity and is flammable. It is a skin, eye and airway irritant. Wear gloves and safety glasses.</td>
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<tr>
<td>Soil protein extraction kit</td>
<td>MoBio, NoviPure Soil Protein Extraction Kit, Qiagen</td>
<td>30000-20</td>
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<tr>
<td>DL-dithiothreitol</td>
<td>Sigma-Aldrich</td>
<td>43815</td>
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</tr>
<tr>
<td>1M Trizma HCL</td>
<td>Sigma-Aldrich</td>
<td>T2694</td>
<td>Caution TCA is caustic, toxic and may cause skin burns. Wear gloves and safety glasses.</td>
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<tr>
<td>Trichloroacetic acid</td>
<td>Sigma-Aldrich</td>
<td>T0699</td>
<td>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.</td>
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<tr>
<td>Acetone</td>
<td>Sigma-Aldrich</td>
<td>650501</td>
<td>Stored at -20°C</td>
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<tr>
<td>Urea</td>
<td>Sigma-Aldrich</td>
<td>208884</td>
<td>Caution Urea is an eye and skin irritant, use gloves and safety glasses</td>
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<tr>
<td>Ammonium bicarbonate</td>
<td>Fluka</td>
<td>09830</td>
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<tr>
<td>Trypsin</td>
<td>Promega</td>
<td>V528A</td>
<td>20µg vials</td>
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<td>Bicinchoninic acid protein assay kit</td>
<td>Pierce</td>
<td>23227</td>
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<tr>
<td>Ammonium Formate</td>
<td>Sigma-Aldrich</td>
<td>09735</td>
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<tr>
<td>Acetonitrile</td>
<td>Sigma-Aldrich</td>
<td>34998</td>
<td>Caution Acetonitrile is a skin and eye irritant. Highly flammable.</td>
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<tr>
<td>Chemical Name</td>
<td>Supplier</td>
<td>Catalog Number</td>
<td>Safety Warnings</td>
</tr>
<tr>
<td>--------------------------------------------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Trifluoroacetic acid</td>
<td>Sigma-Aldrich</td>
<td>T6508</td>
<td>!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.</td>
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<tr>
<td>Methoxyamine hydrochloride</td>
<td>Sigma-Aldrich</td>
<td>226904</td>
<td>!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.</td>
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<tr>
<td>Pyridine</td>
<td>Sigma-Aldrich</td>
<td>270970</td>
<td>!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.</td>
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<td>N-Methyl-N-(trimethylsilyl)trifluoroacetamide with 1% trimethylchlorosilane</td>
<td>Sigma-Aldrich</td>
<td>69478</td>
<td>!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.</td>
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<tr>
<td>Potassium chloride</td>
<td>Sigma-Aldrich</td>
<td>P9541</td>
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<td>Milli-Q water purification system</td>
<td>Millipore</td>
<td>model MPGP04001</td>
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<td>Vortex</td>
<td>Scientific Industries</td>
<td>SI-0236</td>
<td>Vortex Genie 2</td>
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<td>Probe sonicator</td>
<td>FisherBrand</td>
<td>model FB505</td>
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<td>Refrigerated centrifuge</td>
<td>Eppendorf</td>
<td>model 5810R</td>
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<td>50mL tube swinging bucket rotor</td>
<td>Eppendorf</td>
<td>A-4-44</td>
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<td>50mL fixed angle rotor</td>
<td>Eppendorf</td>
<td>FA-45-6-30</td>
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<td>Balance</td>
<td>OHAUS</td>
<td>model V22PWE150IT</td>
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<td>Serological pipette controller</td>
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<td>10mL, 25mL glass serological pipettes</td>
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<td>0.9 – 2.0 mm blend stainless steel beads</td>
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<td>0.15 mm garnet beads</td>
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<td>27.25x70mm glass vials</td>
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<td>BERM-2000</td>
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<td>Alcohol wipes</td>
<td>Diversified Biotech</td>
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<td>Item</td>
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<td>Heater shaker incubator</td>
<td>Benchmark, Incu-Shaker Mini</td>
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<td>Analog rotisserie tube rotator</td>
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<td>Filter-Aided-Sample-Prep kit</td>
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<td>Microplate reader</td>
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<td>-80 Degree Celsius Freezer</td>
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<td>Q-Exactive ion trap mass spectrometer</td>
<td>Thermo Scientific</td>
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<td>Agilent 7890A gas chromatograph coupled with a single quadrupole 5975C mass spectrometer</td>
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<td>LTQ-Orbitrap Velo</td>
<td>Thermo Scientific</td>
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<td>Waters NanoEquityTM UPLC system</td>
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<td>MicroSolv</td>
<td>9502S-WCV, 9502S-02ND</td>
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<td>Spoonula; FisherBrand</td>
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<td>Kim wipes</td>
<td>Kimberly-Clark</td>
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<td>XBridge C18, 250x4.6 mm, 5 µM with 4.6x20 mm guard column</td>
<td>Waters</td>
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<td>Sorensen</td>
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<td>Hamilton Glass Syringes, 5mL, 50µL and 250µL</td>
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<td>Branson 1800 Ultrasonic Cleaner</td>
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<td>Labconco Centrivap Acid-Resistant Concentrator System</td>
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<tr>
<td>MicroSpin Columns, C18 Silica</td>
<td>The Nest Group</td>
<td>SEM SS18V</td>
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