

Materials List for:

Exploring the Root Microbiome: Extracting Bacterial Community Data from the Soil, Rhizosphere, and Root Endosphere

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Materials

Name	Company	Catalog Number	Comments
0.1-10/20 µL filtered micropipette tips	USA Scientific	1120-3810	Can substitute with equivalent from other suppliers.
1.5 mL microcentrifuge tubes	USA Scientific	1615-5510	Can substitute with equivalent from other suppliers.
10 µL multi-channel pipette	Eppendorf	3122000027	Can substitute with equivalent from other suppliers.
10 µL, 100 µL, and 1000 µL micropipettes	Eppendorf	3120000909	Can substitute with equivalent from other suppliers.
100 µL multi-channel pipette	Eppendorf	3122000043	Can substitute with equivalent from other suppliers.
1000 µL filtered micropipette tips	USA Scientific	1122-1830	Can substitute with equivalent from other suppliers.
2 mL microcentrifuge tubes	USA Scientific	1620-2700	Can substitute with equivalent from other suppliers.
2 mm soil sieve	Forestry Suppliers	60141009	Can substitute with equivalent from other suppliers.
200 µL filtered micropipette tips	USA Scientific	1120-8810	Can substitute with equivalent from other suppliers.
25 mL reservoirs	VWR International LLC	89094-664	Can substitute with equivalent from other suppliers.
50 mL conical vials	Thermo Fisher Scientific	352098	Can substitute with equivalent from other suppliers.
500 mL vacuum filters (0.2 µm pore size)	VWR International LLC	156-4020	
96-well microplates	USA Scientific	655900	
96-well PCR plates	BioRad	HSP9631	
Agencourt AMPure XP beads	Thermo Fisher Scientific	NC9933872	Instructions for use: https://www.beckmancoulter.com/wsrportal/ajax/downloadDocument/B37419AA.pdf?autonomyId=TP_DOC_150180&documentName=B37419AA.pdf
Aluminum foil	Boardwalk	7124	Can substitute with equivalent from other suppliers.
Analytical scale with 0.001 g resolution	Ohaus Pioneer	PA323	Can substitute with equivalent from other suppliers.
Bioruptor Plus ultrasonicator	Diagenode	B01020001	
Bovine Serum Albumin (BSA) 20 mg/mL	New England Biolabs	B9000S	

Centrifuge	Eppendorf	5811000908	Including 50mL and 96-well plate bucket adapters
Cryogenic gloves	Millipore Sigma	Z183490	Can substitute with equivalent from other suppliers.
DNeasy PowerClean kit (optional)	Qiagen Inc.	12877-50	Previously MoBio
DNeasy PowerSoil kit	Qiagen Inc.	12888-100	Previously MoBio
Dry ice	Any	NA	
DynaMag-2 magnet	Thermo Fisher Scientific	12321D	Do not substitute
Ethanol	VWR International LLC	89125-188	Can substitute with equivalent from other suppliers.
Gallon size freezer bags	Ziploc	NA	Can substitute with equivalent from other suppliers.
Gemini EM Microplate Reader	Molecular Devices	EM	Can use another fluorometer that reads 96-well plates from the top.
K ₂ HPO ₄	Sigma-Aldrich	P3786	
KH ₂ PO ₄	Sigma-Aldrich	P5655	
Lab coat	Workrite	J1367	Can substitute with equivalent from other suppliers.
Liquid N ₂	Any	NA	Can substitute with equivalent from other suppliers.
Liquid N ₂ dewar	Thermo Fisher Scientific	4150-9000	Can substitute with equivalent from other suppliers.
Milli-Q ultrapure water purification system	Millipore Sigma	SYNS0R0WW	
Mini-centrifuge	Eppendorf	5404000014	
Molecular grade water	Thermo Fisher Scientific	4387937	Can substitute with equivalent from other suppliers.
Mortars	VWR International LLC	89038-150	Can substitute with equivalent from other suppliers.
Nitrile gloves	Thermo Fisher Scientific	19167032B	Can substitute with equivalent from other suppliers.
Paper towels	VWR International LLC	BWK6212	Can substitute with equivalent from other suppliers.
PCR plate sealing film	Thermo Fisher Scientific	NC9684493	
PCR strip tubes	USA Scientific	1402-2700	
Pestles	VWR International LLC	89038-166	Can substitute with equivalent from other suppliers.
Plastic spatulas	LevGo, Inc.	17211	
Platinum Hot Start PCR Master Mix (2x)	Thermo Fisher Scientific	13000014	
PNAs - chloroplast and mitochondrial	PNA Bio	NA	Make sure to verify sequence bioinformatically
Protective eyewear	Millipore Sigma	Z759015	Can substitute with equivalent from other suppliers.
Qubit 3.0 Fluorometer	Thermo Fisher Scientific	Q33216	
Qubit dsDNA HS assay kit	Thermo Fisher Scientific	Q32854	
Rubber mallet (optional)	Ace Hardware	2258622	Can substitute with equivalent from other suppliers.
Shears or scissors	VWR International LLC	89259-936	Can substitute with equivalent from other suppliers.
Shovel	Home Depot	2597400	Can substitute with equivalent from other suppliers.

Soil core collector (small diameter: <1 inch)	Ben Meadows	221700	Can substitute with equivalent from other suppliers.
Spray bottles	Santa Cruz Biotechnology	sc-395278	Can substitute with equivalent from other suppliers.
Standard desalted barcoded primers (10 μ M) (Table 1)	IDT	NA	4 nmole Ultramer DNA Oligo with standard desalting. NGS adapter and sequencing primer (Table 1) are designed for use with Illumina MiSeq using v3 chemistry.
Thermocycler	Thermo Fisher Scientific	E950040015	Can substitute with equivalent from other suppliers.
Triton X-100	Sigma-Aldrich	X100	Can substitute with equivalent from other suppliers.
Weigh boats	Spectrum Chemicals	B6001W	Can substitute with equivalent from other suppliers.