

Materials List for:

Isolation and Compositional Analysis of Plant Cuticle Lipid Polyester Monomers

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Materials

Name	Company	Catalog Number	Comments
Chemicals			
2-propanol	Fisher Scientific	BPA451-4	Solvent for delipidation
Anhydrous sodium sulfate	Fisher Scientific	S421500	
Acetic anhydride	Sigma Aldrich	320102	Derivatization agent
BSTFA (N,O-bis(trimethylsilyl)-trifluoroacetamide)	Sigma-Aldrich	15222	Derivatization agent
Butylated hydroxytoluene (BHT)	Sigma-Aldrich	101162	Antioxidant
Calcium chloride, anhydrous	Fisher Scientific	C614-3	Desiccation agent
Calcium sulfate, anhydrous (DRIERITE- 8 MESH with indicator)	Acros Organics	219090020	Desiccation agent
Chloroform (Trichloromethane)	Fisher Scientific	C6074	Organic solvent
Glacial acetic acid	Fisher Scientific	BP2401212	Acidification agent
Helium carrier gas, compressed	Air Liquide	ALPHAGAZ1-UN1046	Carrier gas, GC/MS
Heptane	Fisher Scientific	H3501	Organic solvent
Hexanes	Fisher Scientific	H3024	Organic solvent
Methanol	Fisher Scientific	A4124	Organic solvent, transmethylation reactive
Methyl acetate	Sigma-Aldrich	296996	Organic solvent
Methyl heptadecanoate	Sigma-Aldrich	H4515	Internal standard (1mg/mL stock)
Methylene dichloride (Dichloromethane)	Fisher Scientific	D374	Organic solvent
Nitrogen, compressed	Air Liquide	ALPHAGAZ1-UN1044	Carrier gas, GC-FID
Pentadecanolactone	Fluka	76530	Internal standard (1 mg/ml stock)
Pyridine	Sigma-Aldrich	270970	Co-solvent for derivatization
Sodium chloride	Fisher Scientific	BP358212	Saline solution
Sodium methoxide (25wt.%)	Sigma-Aldrich	156256	Nucleophile
Toluene	Fisher Scientific	T2904	Organic solvent
Plant Growth Supplies			
Pro-Mix PGX	Premier Tech Horticulture Ltd		Pro-Mix PGX is recommended to grow Arabidopsis plants (Eddy, R. and Hahn, D.T., 2012, http://docs.lib.purdue.edu/pmag/2) Purdue Methods for Arabidopsis Growth.
PermaNest Humidity Dome	Grower's Solution, LLC, Cookeville, TN	GD2211-24	

Perma-Nest Plant Trays (22x11in)	Grower's Solution, LLC, Cookeville, TN	N/A	
Square greenhouse pots, 3.5 inch	Grower's Solution, LLC, Cookeville, TN	P86	
General Purpose Plant Fertilizer, Plant-Prod 20-20-20	Premier Tech Home and Garden In., Brantford, ON	N/A	
Glassware			
13 x 100 mm glass test tube with Teflon-faced screw cap	Kimble Chase Life Science and Research Products LLC	45066A-13100	
16 x 125 mm glass test tube with Teflon-faced screw cap	Kimble Chase Life Science and Research Products LLC	45066A-16125	
20 x 125 mm glass test tubes with Teflon-faced screw cap	Kimble Chase Life Science and Research Products LLC	45066A-20125	
GC vial caps	National Scientific	C400051A	
GC vial microinserts	National Scientific	C4011631	
GC vials	National Scientific	C40001	
Disposable pasteur pipets	Fisher Scientific	1367820B	
Flasks	Fisher Scientific		
Equipment			
Allegra X15R centrifuge	Beckman Coulter		
Analytic balance	Fisher Scientific		
Belly dancer			A shaker can be used for this purpose if Belly Dancer not available
DB-5 Capillary GC column	J&W Scientific, CA, USA;		30 m x 0.25 mm x 0.25 µm film thickness
Desiccator			
Isotemp 202 water bath	Fisher Scientific		
ISQ LT single quadupole mass spectrometer	Thermo Scientific		
Heat block	Fisher Scientific		
Nitrogen evaporator			
Polytron homogenizer	Birkmann		
Trace 1300 gas chromatograph	Thermo Scientific		
Two-stage regulator	Air Liquide	Q1-318B-580	
Vacuum desiccator	Fisher Scientific		
Vortex mixer	Fisher Scientific		