

Materials List for:

Measuring Rates of Herbicide Metabolism in Dicot Weeds with an Excised Leaf Assay

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URL: <https://www.jove.com/video/53236>

DOI: [doi:10.3791/53236](https://doi.org/10.3791/53236)

Materials

Name	Company	Catalog Number	Comments
Agar	Sigma-Aldrich	A1296	for pre-germinating seeds
Potting medium	Sun Gro Horticulture	49040233	for plant growth
Nutricote	Agrivert	TOTAL BLEND 13-13-13 T100	slow-release fertilizer
Growth chamber E15	Controlled Environments Limited	20207	plant culturing
Tris base	Fisher Scientific	BP152-500	buffer for excised leaves
HCl (concentrated)	Fisher Scientific	A144500	adjust pH of buffer
Murashige and Skoog (MS) salts	Sigma-Aldrich	M0404	incubation of excised leaves
Methanol	Fisher Scientific	A452-4	leaf washes after incubation
Acetone	Sigma-Aldrich	179124	plant extractions
Acetonitrile (HPLC grade)	Macron Fine Chemicals	MKH07610	HPLC mobile phase
Formic acid	Mallinckrodt Analytical	MK259205	acidify mobile phase pH
Micro-centrifuge	Eppendorf	5417R	1.5 or 2.0 ml tubes
Centrifuge (temperature controlled)	Eppendorf	5810R	15 or 50 ml tubes
Polypropylene centrifuge tube	Corning Inc.	430790	15 ml, sterile
Rotary evaporator	BÜCHI	R200	concentrate plant samples
Liquid scintillation spectrometry (LSS)	Packard Instruments	104470	quantify ¹⁴ C
High-performance liquid chromatography	Perkin Elmer	N2910401	resolve herbicide metabolites
Flow scintillation analyzer	LabLogic System	1103303	for HPLC analysis of ¹⁴ C
Hypersil Gold C ₁₈ column	Thermo-Scientific	03-050-522	reversed phase
Ultima-Flo M cocktail	Perkin Elmer	6013579	for Flow-scintillation analyzer
Scintillation Cocktail (ScintiVerse BD)	Fisher Scientific	SX18	for LSS; biodegradable
Laboratory homogenizer	Kinematica	CH-6010	homogenize leaf samples