



WOODY & DECIDUOUS PLANT TISSUE CULTURE MEDIA

PhytoTechnology Laboratories offers several media specifically developed for the culture of woody plants. These media range from basic salt formulations to complete media with gelling agents, vitamins, carbohydrates, and plant growth regulators.

All of our media are manufactured according to cGMP guidelines in our environmentally controlled manufacturing facility. Each medium is first tested for specific physiochemical specifications and then biologically tested with two commercially significant plant cell lines. *PhytoTechnology Laboratories* is committed to maintaining inventory of its entire line of plant tissue culture media. Some features of our manufactured media include:



- All media components meet USP or ACS quality standards where applicable.
- *PhytoTechnology Laboratories* has the capacity to manufacture batches of certain media up to 50,000 liters.
- Using powder media simplifies medium production and reduces technician error when preparing individual batches of medium.
- *PhytoTechnology Laboratories* can custom package media orders into sizes that fit your needs. This allows the user to simply open the bottle or foil bag and pour out the entire contents, eliminating the steps the user would have to take to weigh out the individual components themselves.
- *PhytoTechnology Laboratories* offers a Lot Reservation Program for manufactured media which allows you to reserve a specific lot of a medium for your research purposes. We will set aside this batch of medium and when you order, you will receive media from the lot that was reserved. This is great for customers who do not have room to store bulk amounts of media, but would like the consistency of using the same lot of medium throughout their research. This reservation program is offered at no additional cost, however size restrictions may apply.
- Custom liquid and powdered media manufacturing is available in batches ranging from 100 liters up to 25,000 liters. Formulations are kept confidential. Contact us for more details.
- There is no minimum when ordering stock products from *PhytoTechnology Laboratories*.

Contact us if you are interested in learning more about our products or custom media manufacturing.

PhytoTechnology Laboratories®

P.O. Box 12205; Shawnee Mission, KS 66282-2205

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Web Site: www.phytotechlab.com

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PhytoTechnology Laboratories® Technical Information

The following table will aid in the selection of a medium for research or micropropagation applications.

[Visit the product web page by clicking the product number.](#)

Product Number	Product Description	Plant Species	2,4-D mg/L	IAA mg/L	NAA mg/L	6-BA mg/L	2iP mg/L	Kinetin mg/L	Purpose
A267	Anderson's Basal Salt Mixture	<i>Erica carnea</i> <i>Kalmia augustifolia</i> <i>Rhododendron catawbiense</i> <i>Rhododendron</i> hybrids <i>Rhododendron</i> PJM hybrids <i>Rubus idaeus</i> <i>Rubus occidentalis</i> <i>Vaccinium augustifolium</i>			4.0	4.0 1.0-2.0	15.6 15.5 15-17 5.0 15.0		Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult
C287	Chee & Pool Vitis Cd2 Medium	<i>Vitis</i> spp.			0.9		1.1		Shoot Mult
D146	DCR Basal Salt Mixture	<i>Picea glauca</i>			2.5			1.0	Callus Growth
D189	DKW Basal Salt Mixture	<i>Juglans hindsii</i> <i>Juglans nigra</i>				1.0 2.5			Shoot Mult Shoot Mult
D190	DKW Basal Salt Mixture	<i>Juglans hindsii</i> <i>Juglans nigra</i>				1.0 2.5			Shoot Mult Shoot Mult
D191	DKW Basal Salt Mixture	<i>Juglans hindsii</i> <i>Juglans nigra</i>				1.0 2.5			Shoot Mult Shoot Mult
D2470	DKW Medium with Vitamins	<i>Juglans hindsii</i>				1.0			Shoot Mult
E575	Economou & Read Basal Medium	<i>Rhododendron</i> spp.					5-20		Shoot mult.
G371	Gresshoff & Doy Basal Medium	<i>Vitis vinifera</i>			0.5			0.1	Callus growth
L154	Lloyd & McCown's Woody Plant Basal Salt Mixture	<i>Betula</i> spp. <i>Carya ilinoensis</i> <i>Ceris Canadensis</i> <i>Fraxinus americana</i> <i>Fraxinus pennsylvanica</i> <i>Halesia carolina</i> <i>Kalmia latifolia</i> <i>Liquidambar styraciflua</i> <i>Populus</i> spp. <i>Prunus armeniaca</i> <i>Quercus shumardii</i> <i>Rhododendron</i> spp. <i>Rosa chinensis</i> <i>Salix</i> spp. <i>Taxus floridana</i> <i>Vaccinium corymbosum</i>			0.05	0.9 3.0 2.0 0.5 0.5-1.0 1.0-2.5 1.0 0.09 2.0 0.9 0.1-0.2 1.0	1.63 0.8-3.2 5.0		Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult Shoot Mult
L444	Lloyd & McCown Micronutrient Salts	See Info for L154							
L449	Lloyd & McCown's WPM Medium	See Info for L154							
L546	Litvay Basal Salt Mixture	<i>Pinus taeda</i> <i>Pseudotsuga menziesii</i>	2.5						Callus growth
Q673	Quoirin & Lepoivre Basal Salt Mixture	<i>Prunus</i> spp.				1.0			Shoot Mult
R756	Rose Initiation Medium	<i>Rosa hybrida</i>							Shoot Initiation
R757	Rose Multilication Medium	<i>Rosa hybrida</i>		0.3		3.0			Shoot Multi
R758	Rose Rooting Medium	<i>Rosa hybrida</i>							Shoot Rooting
R7100	Rugini Olive Medium	<i>Olea</i> spp.							Shoot Mult
W863	Westvaco WV3 Basal Medium	<i>Pinus taeda</i>							Shoot Mult
W865	Westvaco WV5 Basal Medium	<i>Pinus taeda</i>							Shoot Mult

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Component List for Woody and Deciduous Plant Media

To view the product information sheet (pdf) for the full list of components, simply click on the product number.

All components in mg/L	Anderson's Basal Salt Mixture	Chee & Pool Vitis Cd2 Medium	DCR Basal Salts	DKW Basal Salts & Medium	Economou & Read Basal Medium	Gresshoff & Doy Basal Medium	Lloyd and McCown's Woody Plant Salts & Medium	Lloyd and McCown's WPM Micronutrient Mixture	Litway Basal Salt Mixture	Quoirin & Lepoivre Basal Salt Mixture	Rose Initiation Medium	Rose Rooting Medium	Rugini Olive Medium	Westvaco WV3 Basal Medium	Westvaco WV5 Basal Medium
COMPONENT	A267	C287	D146	D189 D190 D191 D2470	E575	G371	L154 L449	L444	L546	Q673	R756 R757	R758	R7100	W863	W865
Ammonium Nitrate	400.0	1650.0	400.0	1416.0	400.0	1000.0	400.0		1650.0	400.0	1650.0	412.5	412.0		700.0
Ammonium Sulfate					132.0										
Boric Acid	6.2	6.2	6.2	4.8	6.2	0.3	6.2	6.2	31.0	6.2	6.2	1.55	12.4	31.0	31.0
Calcium Chloride Anhydrous	332.2		64.14	112.5	332.2		72.5	72.5	16.61		332.2	83.25	332.2	452.9	452.9
Calcium Nitrate		492.3	386.31	1367.0		241.2	386.0			833.77			416.9		
Cobalt Chloride•6H ₂ O	0.025	0.025	0.025		0.025	0.025			0.125	0.025	0.025	0.006	0.025	0.025	0.025
Cupric Sulfate•5H ₂ O	0.025	0.025	0.025	0.25	0.025	0.025	0.25	0.25	0.5	0.025	0.025	0.006	0.25	0.25	0.25
FeNaEDTA									36.7			9.175		36.7	36.7
Na ₂ -EDTA	74.5	37.3	37.3	45.5		37.25	37.3	37.3		37.3	37.26		37.5		
Ferrous Sulfate•7H ₂ O	55.7	27.8	27.8	33.8		27.85	27.9	27.85		27.8	27.8		27.8		
Magnesium Sulfate	180.7	180.6	180.7	361.49	180.7	17.1	180.7	180.7	903.4	175.79	180.7	45.25	732.5	903.8	903.8
Manganese Sulfate•H ₂ O	16.9	0.845	22.3	33.5	16.9	1.0	22.3	22.3	21.0	0.76	16.9	4.225	16.9	15.2	15.2
Molybdc Acid (Sodium Salt)•2H ₂ O	0.25	0.25	0.25	0.39	0.25	0.025	0.25	0.25	1.25	0.25	0.25	0.063	0.25	0.25	0.25
Potassium Chloride						65.0								656.8	718.7
Potassium Iodide	0.3		0.83			0.8			4.15	0.08	0.83	0.208	0.83	0.83	0.83
Potassium Nitrate	480.0	1900.0	340.0		202.0	1000.0			1900.0	1800.0	1900.0	475.0	1100.0	910.1	1084.1
Potassium Phosphate Monobasic		170.0	170.0	265.0	408.0	300.0	170.0	170.0	340	270.0	170.0	42.5	340.0	270.0	270.0
Potassium Sulfate				1559.0			999.0								
Sodium Phosphate Monobasic	330.6														
Zinc Nitrate•6H ₂ O				17.0											
Zinc Sulfate•7H ₂ O	8.6	8.6	8.6		8.6	0.3	8.6	8.6	43.0	8.6	8.6	2.15	14.3	8.6	8.6
<i>Other Components (mg/L unless other wise specified)</i>		1.0 Thiamine, 1.0 Nicotinic Acid, 1.0 Pyridoxine HCl	0.025 Nickel Chloride•6H ₂ O	All- 0.005 Nickel Sulfate•6H ₂ O See product info sheet for complete formulation.	100 myo-inositol, 0.40 Thiamine •HCl, 56.0 NaFe-DTPA	0.2 Biotin, 4 Glycine, 10 myo-inositol, 0.1 Nicotinic Acid, 0.1 Pyridoxine•HCl, Thiamine•HCl	L449 contains vitamins (See product info sheet for complete formulation.)				See product info sheet for complete formulation.	See product info sheet for complete formulation.	See product info sheet for complete formulation.	1000 myo-inositol, 0.4 Thiamine•HCl	1000 myo-inositol, 0.4 Thiamine•HCl

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