

# Arabidopsis protocols

## Humana Press - Protocols

Media	Components (per litre)	Add after sterilization (per litre)
Seed germination medium (SGM)	2.1 g MS basal salts 10 g sucrose 10 g agar (pH 5.8)	1 ml Vitamin stock (0.5 mg/ml)
Cocultivation medium (CCM)	4.32 g MS basal salts 0.5 g 2-(4-phosphinoethane sulfonic acid (MES) 10 ml myo-inositol solution 10 g sucrose (pH 5.7)	nicotinic acid, 0.5 mg/ml pyridoxine, 0.5 mg/ml thiamine-HCl
Callus induction medium (CIM)	4.32 g MS basal salts 0.05 M MES 10 ml myo-inositol solution 20 g sucrose (pH 5.7)	1 ml Vitamin stock 5 µg/ml IAA 0.5 µg/ml 2,4-D 0.3 µg/ml kinetin 7.5 g agar

Description: -

- Water -- Purification -- Reverse osmosis process.

Acid mine drainage.

Arabidopsis -- Molecular aspects -- Laboratory manuals.

Arabidopsis -- Laboratory manuals. Arabidopsis protocols

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v. 82.

Methods in molecular biology (Clifton, N.J.) ;

v. 82

Methods in molecular biology ; Arabidopsis protocols

Notes: Includes bibliographical references and index.

This edition was published in 1998



Filesize: 65.71 MB

Tags: #Arabidopsis #mesophyll #protoplasts: #a #versatile #cell #system #for #transient #gene #expression #analysis

## Protocol Search

P3911 , sterilize using a 0. The specific reporter readout value should be normalized with that of a co-transfected control reporter driven by a constitutive promoter, e.

## Arabidopsis mesophyll protoplasts: a versatile cell system for transient gene expression analysis

Protoplasts prepared from leaves recovered from stress conditions e. Pots are placed on raised benching which is watered on an automated ebb and flow drench and drain system When the seeds have germinated the sleeves are unfurled to form a 'personal propagator' which keeps the plants of one line isolated from neighbouring plants ensuring that absolutely no cross-pollination can occur , and provides support to reduce sprawl and conserve growing area space.

## Arabidopsis Protocols

Indispensable and highly practical, *Arabidopsis Protocols*, Second Edition offers both novice and experienced plant biologists cutting-edge tools to explore new scenarios and gain an understanding of how this complex, multicellular organism works, how it copes with a sessile life style, and how these strategies compare with those developed in other organisms. Sanchez-Serrano Series Title Series Volume 323 Copyright 2006 Publisher Humana Press Copyright Holder Humana Press eBook ISBN 978-1-59745-003-4 DOI 10. Written in the successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and avoiding known pitfalls.

## Arabidopsis Protocols

Remarkably, these protoplasts maintain many of the same physiological responses and cellular activities as intact plants, despite the enzymatic treatment step.

## Arabidopsis mesophyll protoplasts: a versatile cell system for transient gene expression analysis

Although the protoplasts can be kept on ice for at least 24 h, freshly prepared protoplasts should be used for the study of gene expression

regulation, signal transduction and protein trafficking, processing and localization. Protoplasts had been used to observe cellular processes and activities such as cell wall synthesis, cell division, embryogenesis, differentiation during regeneration, photosynthesis activity, calcium signaling and regulation, and the modulation of ion channels by light, stress and hormone responses in various plant species. For the inducible gene expression system, DEX can be added to the protoplasts 15—30 min after DNA transfection.

### **Arabidopsis Protocols**

The enzyme solution should be prepared fresh.

### **Arabidopsis Protocols, 2nd Edition**

If protoplasts are derived from healthy leaf materials, most protoplasts should remain intact throughout the isolation, transfection, culture and harvesting procedures. The plasmid DNA has to be purified appropriately to support high transfection efficiency.

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