

Sep 24, 2019

Hornwort growth media

Eftychis Frangedakis¹¹University of Cambridge

1

Works for me

dx.doi.org/10.17504/protocols.io.4x2gxqe



Eftychis Frangedakis

University of Cambridge, Plant Sciences, OpenPlant



ABSTRACT

Hornworts have a remarkable regenerative capacity. For tissue culturing / propagation you just need to transfer a small tissue fragment on fresh media and that's it... it will keep growing.

MATERIALS

NAME ▾

CATALOG # ▾

VENDOR ▾

Duchefa Gelrite™

G1101

Gold Biotechnology

MATERIALS TEXT

G1910 - Sigma**Gelzan™ CM****Gelrite®****Synonym: Agar substitute gelling agent, Gellan Gum****BCD medium****Stock B (1L)**25g MgSO₄ x 7H₂O**Stock C (1L)**25g KH₂PO₄

pH to 6.5 with KOH

Stock D (1L)101g KNO₃1.25g FeSO₄ x 7H₂O**Stock CaCl₂ (1L)**14.7g CaCl₂ x 2H₂O**Trace element solution (1L)**55mg CuSO₄ x 5H₂O614mg H₃BO₃55mg CoCl x 6H₂O25mg NaMoO₄ x 2H₂O55mg ZnSO₄ x 7H₂O389mg MnCl₂ x 4H₂O

28mg KI

BCD working solution (1L)

10ml Stock B

10ml Stock C

10ml Stock D
10ml Stock CaCl₂
1ml Trace element solution
[for plate: 8g agar]

KNOP

Stock 1 (1L, autoclave)
25g KH₂PO₄

Stock 2 (1L, autoclave)
25g KCl

Stock 3 (1L, autoclave)
25g MgSO₄ x 7H₂O

Stock 4 (1L, autoclave)
100g Ca(NO₃)₂ x 4H₂O

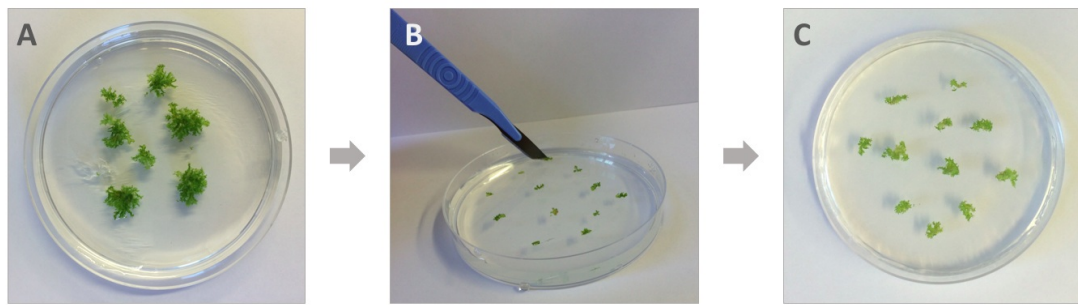
KNOP working solution (1L, autoclave)

10mL Stock 1
10mL Stock 2
10mL Stock 3
10mL Stock 4

12.5mg FeSO₄ x 7H₂O

pH to 5.8 with KOH

- 1 Using a sterile scalpel transfer a small thallus tissue fragment (around 3mm x 3mm, but can also be smaller or bigger) on KNOP or BCD fresh media plates. Grow at 21°C, 12 h of light and 12 h of dark, 1500 lux light intensity
- 2 Subculture every 1-2 months



This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited