

Dec 12, 2022

Preparing_Duckweed-Bacteria_Cultures

DOI

<https://dx.doi.org/10.17504/protocols.io.36wggjd7kvk5/v1>

Kenneth Acosta¹

¹Rutgers University



Kenneth Acosta

Rutgers University

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.36wggjd7kvk5/v1>

Protocol Citation: Kenneth Acosta 2022. Preparing_Duckweed-Bacteria_Cultures. protocols.io
<https://dx.doi.org/10.17504/protocols.io.36wggjd7kvk5/v1>

License: This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Created: December 11, 2022



Last Modified: December 20, 2022

Protocol Integer ID: 73842

Keywords: bacteria-cultures protocol, bacteria culture, bacteria interaction, duckweed

Abstract

Protocol to generate duckweed-bacteria cultures to study duckweed-bacteria interactions.

Guidelines

Some bacteria may grow slowly. In this case, more time is needed for bacterial cultures to grow to sufficient concentrations.

Some bacteria do not pellet easily. Longer centrifugation times and higher centrifugation speeds may be needed for these types of bacteria.

Materials

Note: All reagents/materials should be sterilized.

- H₂O
- media
- 30 mL round-bottom centrifuge tubes
- 50 mL centrifuge tubes
- baby jars



Day 1

- 1 Inoculate 5 mL liquid cultures from bacterial glycerol stocks.
- 2 Grow 5 mL liquid bacterial cultures overnight at 28C at 250 rpm.

Day 2

- 3 Use 500 uL of liquid bacterial culture from Day 1 to inoculate 50 mL liquid cultures.
- 4 Grow 50 mL liquid bacterial cultures overnight at 28C at 250 rpm.

Day 3 (t = 0 days, start of experiment)

- 5 Transfer 25 mL of bacterial cultures to sterile 30 mL centrifuge tubes.
- 6 Spin at 8000 rpm for 5 min at 4C.
- 7 Decant SN.
- 8 Add 25 mL of sterile H₂O to pellets. Resuspend pellets.
- 9 Spin at 8000 rpm for 5 min at 4C.
- 10 Decant SN.
- 11 Add 25 mL of sterile H₂O to pellets. Resuspend pellets.



- 12 Spin at 8000 rpm for 5 min at 4C.
- 13 Decant SN.
- 14 Suspend in 25 mL of media.
- 15 Read OD600. In a volume of 50 mL dilute to OD600 = 0.2.
- 16 Transfer 50 mL cultures to baby jars.
- 17 Inoculate cultures with duckweed to cover the surface of the culture.