Nov 20, 2020

Visualization of chitin-rich tissues with Lactophenol blue slide mount

DOI
dx.doi.org/10.17504/protocols.io.bnuzmex6

Jiri Hulcr[1]

[1]University of Florida

Protocols Bark Beetle M...

Bark Beetle Mycobiome Research Coordination Network Bark

Beetle

OPEN ACCESS

DOI: dx.doi.org/10.17504/protocols.io.bnuzmex6

Document Citation: Jiri Hulcr 2020. Visualization of chitin-rich tissues with Lactophenol blue slide mount. **protocols.io** **https://dx.doi.org/10.17504/protocols.io.bnuzmex6**

License: This is an open access document 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

Created: October 23, 2020

Last Modified: November 20, 2020

Document Integer ID: 43641

Abstract

This protocol describes how to visualize chitin-rich tissues, such as fungal mycelium.

This protocol is part of the Bark Beetle Mycobiome (BBM) Research Coordination Network. For more information on the BBM international network: Hulcr J, Barnes I, De Beer ZW, Duong TA, Gazis R, Johnson AJ, Jusino MA, Kasson MT, Li Y, Lynch S, Mayers C, Musvuugwa T, Roets F, Seltmann KC, Six D, Vanderpool D, & Villari C. 2020. Bark beetle mycobiome: collaboratively defined research priorities on a widespread insect-fungus symbiosis. Symbiosis 81: 101–113 https://doi.org/10.1007/s13199-020-00686-9.

Steps:

1. Place a drop of 70-95% ethanol on a microscope slide.
2. Immerse the fungal material in the drop of alcohol.
3. Add one or at most two drops of the lactophenol blue stain before the alcohol dries out.
4. Holding the coverslip between forefinger and thumb, touch one edge of the drop of alcohol/stain with the coverslip edge, and lower gently to avoid air bubbles.
5. Seal the edge of the coverslip with nail polish to prevent desiccation. This way, the mount will last for days to months.