Nov 20, 2020

Visualization of chitin-rich tissues with Lactophenol blue slide mount

Jiri Hulcr[1]

[1]University of Florida

1 Works for me dx.doi.org/10.17504/protocols.io.bnuzmex6

Bark Beetle Mycobiome Research Coordination Network

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.

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

Oct 23, 2020

LAST MODIFIED

Nov 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.

Citation: Jiri Hulcr (11/20/2020). Visualization of chitin-rich tissues with Lactophenol blue slide mount. https://dx.doi.org/10.17504/protocols.io.bnuzmex6

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

5. Seal the edge of the coverslip with nail polish to prevent desiccation. This way, the mount will last for days to months.

Citation: Jiri Hulcr (11/20/2020). Visualization of chitin-rich tissues with Lactophenol blue slide mount. https://dx.doi.org/10.17504/protocols.io.bnuzmex6

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