



LACTOPHENOL BLUE STAIN

- For in vitro use only -

Catalogue No. SL18

Our Lactophenol Blue Stain is used as a mounting medium for studying fungi.

Although many criteria are considered when identifying moulds such as culture characteristics, temperature tolerance, nutritional profiles, and various biochemical tests, modern classification schemes emphasize microscopic morphological features that are stable and exhibit minimal variation. The definitive identification of moulds is based on the shape, method of production, and arrangements of spores (conidial ontogeny).

Lactophenol Blue Stain is a mounting medium and staining agent used in the preparation of slides for microscopic examination of fungi. Specimen mounts for microscopic examination of moulds includes teased, mashed, and slide culture preparations; however, the slide culture is limited to organisms of low virulence. Lactophenol Blue can be used for all the above listed preparations.

Formula per 100 mL

Phenol	20.0 g
Lactic Acid	20.0 mL
Glycerol	40.0 mL
Cotton Blue	0.05 g

Recommended Procedure

(The procedures for the simplest mounts are listed below please refer to an appropriate text if performing a slide culture)

Tease Mount Procedure

1. Place a drop of Lactophenol Blue on a clean microscope slide.
2. Using an inoculating needle, gently remove a small portion of growth midway between the colony center and edge. Place the

growth in the drop Lactophenol Blue on the slide.

3. With two sterile dissecting needles, gently tease the fungus apart so that it is thinly spread out in the Lactophenol.
4. Place a coverslip edge of the Lactophenol and slowly lower it. Avoid trapping air bubbles under the coverslip.
5. If desired, seal the edges of the coverslip with nail polish or permount to preserve the mount as a reference slide.
6. Examine the slide under the microscope.

Scotch Tape Procedure

1. Cut a strip of transparent tape and place ends between thumb and index finger with the sticky side out.
2. Make a loop extending outwards by closing the thumb and index finger. Open the culture plate with the opposite hand and press tape against the colony of interest.
3. Place a drop of Lactophenol Blue on a clean glass slide.
4. Press tape against the Lactophenol.
5. Smooth the tape back on the slide by opening fingers and using gauze.
6. Place another drop of Lactophenol Blue on top of the tape.
7. Place a large coverslip on top of the slide.
8. Examine the slide under the microscope.

Interpretation of Results

Refer to an appropriate text for a detailed description of characteristic morphological structures of different moulds.

- *The scotch tape mount is a temporary mount and will dissolve eventually*

- *For the tease mount, conidia or spores may be dislodged from the conidiogenous or sporogenous cells*
- *Once immersed in Lactophenol Blue Solution the organism is rendered safe for handling outside of the biological safety hood*
- *For pigmented strains of moulds, lactophenol without cotton blue is available and can be used*

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Revised / Reviewed: October 2014

Quality Control

Internal quality control of the Lactophenol Blue Solution must be performed regularly on known reference organisms to ensure the performance of the mounting solution.

Storage and Shelf life

Our Lactophenol Blue Stain should be stored at room temperature and protected from light. Under these conditions it has a shelf life of 52 weeks from the date of manufacture.

References

1. Emmons CW, Binford CH, Utz JP, Kwon-Chung KJ. Medical mycology. 4th ed. Philadelphia: Lea & Febiger, 1977.
2. McInnis MR. Laboratory handbook of medical mycology. New York: Academic Press, 1980.
3. Baron EJ, Tenover FC, Tenover FC. Bailey & Scott's diagnostic microbiology. St. Louis: Mosby Company, 1990.
4. Larone DH. Medically important fungi: a guide to identification. Washington DC: ASM Press, 1995.
5. Murray PR, Baron E, Pfaller M, Tenoer F, Tenover FC, Tenover FC, Eds. Manual of clinical microbiology. 7th ed. Washington: ASM, 1999.