

LACTOPHENOL BLUE SOLUTION

IVD *In vitro* diagnostic medical device



Solution for fungi staining and analysis used in microbiology

INSTRUCTIONS FOR USE

REF Catalogue number: LPB-OT-100 (100 ml) LPB-OT-250 (250 ml) LPB-OT-500 (500 ml)

Introduction

Lactophenol Blue is one of the reagents most commonly used as a part of standard methods of microscopic fungi analysis. It is used for preparing semipermanent and permanent microscopic sections that have the fungus cytoplasm stained, creating a bright blue background. That enables detecting hyphal cell wall and other fungal structures that are stained dark blue. The solution consists of four components: phenol (fungicide that causes cellular protein precipitation and inactivation of enzyme systems), lactic acid (acts as a clearing medium), Aniline Blue dye (stains hyalins of fungal structures and in turn making them visible) and glycerol (enables semipermanent state of the section and its analysis 18-24 hours after preparation). Because of the components' properties, BioGnost's Lactophenol Blue solution is at the same time a mounting medium and a staining reagent, enabling practical, fast and efficient sample analysis.

Product description

- **LACTOPHENOL BLUE SOLUTION** - Solution for use in microbiology for visualisation and analysis of samples of fungi.

Other products that may be used:

- Glass slides for use in microbiology, such as VitroGnost ECONOMY GRADE or one of more than 30 models of BioGnost's glass slides

Sample staining procedure

1.	Add 1-2 drops of Lactophenol Blue solution on a clean glass slide.	
2.	Add a fungus sample (preferably containing spores or structures that contain spores) to the drop of the solution using a sterilized, cold microbiological loop.	
3.	Spread the sample using the loop in order to equally mix it with the dye in a thin layer.	
4.	Slowly put the cover glass on the sample. Avoid formation of air bubbles under the cover glass.	
5.	Let it react.	5 min
6.	View the sample under microscope using low magnification.	
Note: Using a colorless varnish enables isolation of the cover glass and turning the sample into a permanent (control) preparation.		

Results

Yeast cells, mycelium, hyphae, budding structures (cell reproduction elements) - blue
Background (cytoplasm) - bright blue

Note

Microbiology staining procedures are not standardized and they depend on standard operating procedures of individual laboratories and the experience of the personnel conducting the staining procedure. Intensity of staining depends on the period of immersion in the dye. Depending on personal requests and standard laboratory operating procedures, sample processing and staining can be carried out according to other protocols.

Preparing the sample and diagnostics

Use only appropriate instruments for collecting and preparing the samples. Process the samples with modern technology and mark them clearly. Follow the manufacturer's instructions for use. In order to avoid mistakes, the staining procedure and diagnostics should only be conducted by authorized and qualified personnel. Use only microscope according to standards of the medical diagnostic laboratory. In order to avoid an erroneous result, a positive and negative check is advised before application.

Safety at work and environmental protection

Handle the product in accordance with safety at work and environmental protection guidelines. Used solutions and out of date solutions should be disposed of as special waste in accordance with national guidelines. Chemicals used in this procedure could pose danger to human health. Tested tissue specimens are potentially infectious. Necessary safety measures for protecting human health should be taken in accordance with good laboratory practice. Act in accordance with signs and warnings notices printed on the product's label, as well as in BioGnost's material safety data sheet which is available on demand.

Storing, stability and expiry date

Keep Lactophenol Blue solution in a tightly sealed original packaging at temperature of 15 to 25 °C. Keep in dry places, do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

References

1. Aneja, K. R. (2003): Experiments in Microbiology, Plant Pathology and Biotechnology, 4th ed., New Age International Publishers.
2. Heritage, J., Evans, E.G.V., Kiington, R. A. (1996): Introductory Microbiology, 1st ed., Cambridge University Press.

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Refer to the supplied documentation	Storage temperature range	Number of tests in package	REF Product code	European Conformity
Refer to supplied instructions	Keep away from heat and sunlight	Valid until	LOT Lot number	Manufacturer
IVD For <i>in vitro</i> diagnostic use only	Keep in dry place	Caution - fragile		

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