



LACTO-FUCHSIN STAIN

- For in vitro use only -

Catalogue No. SL11

Our Lacto-Fuchsin Stain is used as a mounting medium and staining agent for studying fungi.

Although many criteria are considered when identifying molds 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).

Most fungi can be observed microscopically in a droplet of water under a cover slip, but more permanent slides can be prepared using lactic acid as a mounting medium. Acid fuchsin is the staining agent added; the lacto-fuchsin mixture binds well to the cell walls of fungi coloring fungal elements red in the process. Mounts made with lacto fuchsin are similar to those made with lactophenol cotton blue but are superior in that cell walls stand out more clearly since the refractive index is further from that of the cell walls of hyaline fungi, and staining is more rapid.

Formulation per 100 mL

Acid Fuchsin 0.1 g
Lactic Acid (85%) 100.0 mL

Recommended Procedure

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

1. Place a drop of Lacto-Fuchsin Stain 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 material in the stain on the slide.

3. With two sterile dissecting needles, gently tease the fungus apart so that it is thinly spread out in the Lacto-Fuchsin stain.
4. Place a coverslip at the edge of the Lacto-Fuchsin and slowly lower it. Avoid trapping air bubbles under the coverslip and remove any excess stain from the edge of the coverslip by blotting with a paper towel.
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.

Interpretation of Results

Acid fuchsin binds to the cell walls of fungi and stains the cells red. Refer to an appropriate text for a detailed description of characteristic morphological structures of different molds.

Quality Control

Internal quality control of the Lacto-Fuchsin Stain must be performed regularly on known reference organisms to ensure the performance of the mounting solution.

Storage and Shelf life

Our Lacto-Fuchsin 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.

