

Methylene Blue (Aqu) 1%**Intended use**

Methylene Blue (Aqu) 1% w/v is used as general-purpose biological stain and capsule staining.

Summary

Methylene Blue was earlier recognized as a good nuclear stain, the staining solutions are always either aged or alkalinized, if not both. More importantly it is an excellent stain for ribonucleic acid, which is the important stainable constituent of bacterial bodies, of lymphocyte and hemoproteal cytoplasm, and of nerve cell tigroid granules.

Principle

Capsules are composed of mucoid polysaccharides of polypeptides. These are detected by capsule staining. The main purpose of capsule stain is to distinguish capsular material from the bacterial cell. The capsule stain is a differential stain used to detect cells capable of producing an extra cellular capsule. The capsule stain begins as a negative stain. Cells are spread in a film of the acidic stain and are not heat-fixed. Heat-fixing causes shrinkage of the cells, leaving an artifactual white halo around them that might be falsely interpreted as a capsule. Capsules appear colourless with stained cells against a dark background.

Reagent / Contents

Methylene Blue	1%
Water	99%

Appearance

Dark blue coloured solution.

Storage and Stability

Store the Methylene Blue (Aqu) 1% at room temperature 15°C-30°C, away from light. Stability of the Methylene Blue (Aqu) 1% is as per the expiry date mentioned on the label.

Materials required but not provided

Clean grease-free glass slide, loops, staining rack, blotting paper, immersion oil (Cat. No. 207090110025), 0.5% Aqu. Safranin, microscope.

Type of Specimen

Any isolated colony on primary or sub-cultured plates can be isolated from the following specimens.

Clinical specimen: Blood, urine, CSF, pus, wounds, lesions, body tissues, sputum etc.

From environment: Air, water, soil, sludge, wastewater, food, dairy samples.

Procedure

- 1. Capsule Staining**
- Take a drop of Methylene Blue Stain on a clean dry slide.
- Add sample to the drop & mix with the help of loop.
- Using another slide make a thin smear.
- Air dry the slide and observe under oil immersion objective.
- 6. Simple Staining for Bacteria / tissue cells**
- Prepare smear on a clean glass slide, air dry and heat fix.
- Flood the slide with aqueous methylene blue stain and keep for 2-3 minutes.
- Wash the slide with running tap water.
- Counter stain with 0.5% aqu. Safranin/ Schaeffer & Fulton's Spore stain B for 30 seconds (only for bacteria).
- Blot air dry and observe under oil immersion objective.

Results

A. Background- Bluish and Capsule- Colourless (Hollow bodies).

B. Background-Colourless and Bacterial cells- Blue / counter stained as pink coloured.

C. Tissue Cells- Blue coloured.

Warranty

This product is designed to perform as described on the label and pack insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation

Cat No.	Product	Pack Size
203130850125	Methylene Blue (Aqu) 1%	125 mL
203130850250		250 mL
203130850500		500 mL

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
