

Potassium permanganate

Cat. 4655

For use in Morse's fluorescence method for acid-alcohol resistant microorganisms staining. For "in vitro" diagnostic.

Practical information

Applications	Categories
Differentiation	Acid-fast organisms (AFB)

Industry: Dyes and stains

Principles and uses

The technique for the detection of acid-alcohol resistant microorganisms by fluorescence is similar to the classic Ziehl staining, but in this case carbol fuchsin is replaced with a fluorescent dye with added phenol. Fluorescence coloring presents the advantage of greater visibility of a fluorescent microorganism against a dark background. This allows use of lower-magnification lens, which increase the field of view and decrease the time needed to evaluate the preparation.

Formula in g/L

Water	955	Potassium permanganate	5
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Instructions for use

- 1- Place slides on a staining rack and flood with Auramine for 15 min.
- 2-Wash gently in running water.
- 3-Decolorize with a decolorizer for 30 - 60 s.
- 4-Wash slides gently in running water.
- 5-Counterstain for 2 min (Potassium permanganate or Thiazine red).
- 6-Wash gently in running water.
- 7-Air dry.
- 8-Examine under a microscope fitted with filter sets.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Liquid	N/A	N/A	N/A

Microbiological test

Any interference is not known. Acid, basic or high levels of Chloride or salts in wash water could alter the results.

Microrganisms	Specification
Background with permanganate	Black
Background with thiazine red	Dark red
Acid-fast organisms (AFB)	Bright greenish-yellow fluorescing
Non-acid-fast organisms	Non-fluorescent or slightly fluorescent

Storage

Temp. Min.:15 °C
Temp. Max.:30 °C

Bibliography

Truant, Brett, Thomas, fluorescent microscopy acid-fast procedure 1962, 382-383 in Clarck, G., Staining procedures (1981), 4th ed. W&W.
Lenette, Spaulding and Truant. Manual of Clinical Microbiology (1974), 3rd . ed., ASM.