



1B-429

Methylene blue, Puriss

1B-431

Methylene blue, Ehrlich

1B-433

Methylene blue, Koch

In-vitro diagnostic agent

Description

The product 1B-429 is a dye for use in cytology and bacteriology. It is a dry dye for preparing a staining solution for professional users.

The product 1B-429 is supplied in 7 different pack sizes: 1B-429.00010 (10g bottle), 1B- 429.00025 (25g bottle), 1B-429.00100 (100g bottle) ,1B-429.00250 (250g bottle) ,1B-429.00500 (500g bottle,) 1B-429.01000 (1kg bucket) and 1B-429.10000 (10kg drum).

The product 1B-431 is supplied in 4 different pack sizes: 1B-431.00010 (10g bottle), 1B- 431.00025 (25g bottle), 1B-431.00100 (100g bottle) and1B-431.01000 (1kg bottle).

The product 1B-433 is supplied in 4 different pack sizes: 1B-433.00010 (10g bottle), 1B- 433.00025 (25g bottle), 1B-433.00100 (100g bottle) and1B-433.01000 (1kg bottle).

Main components

Methylene blue (C.I. 52015)

Purpose

Methylene blue is used for the examination of bacteriological and histological sample material such as microbiological smears or histological sections. It is a dry dye for preparing a staining solution for professional users. It can be used for overview staining of cell and tissue components. In microbiology it is used for counterstaining after previous Ziehl-Neelsen staining.

Sample material and sample preparation

Sampling may only be carried out by qualified personnel. All samples must be processed with state-of-the-art technology. All samples must be clearly labelled.

Sample material: air-dried, heat-fixed smears of bacteriological material such as sputum, fine needle aspiration biopsy (FNAB) smears, irrigation fluids, imprints, effusions, pus, exudates, liquid and solid cultures. Sections of formalin-fixed, paraffin-embedded tissue (3–4 µm thick paraffin sections).



Test principle

After Ziehl-Neelsen staining of the acid-resistant bacteria, counterstaining with methylene blue enables the visualisation of the non-acid-resistant microorganisms.

Staining

Before staining, deparaffinise the histological sections and transfer them to distilled water via a descending ethanol series.

To prepare the dye solution, mix methylene blue with ethanol 95% and aqueous potassium hydroxide solution 0.1%. The freshly prepared staining solution should be filtered before use.

First, a staining with carbol fuchsin solution according to Ziehl-Neelsen is carried out. After subsequent rinsing in tap water and exposure to hydrochloric acid alcohol, counterstain with methylene blue and air-dry after rinsing again with tap water.

The samples can be covered with a synthetic covering medium for subsequent microscopy.

To ensure the differentiability of the target structures, suitable control specimens should be kept along with the staining.

The usual staining protocols known from literature must be used.

Staining may only be carried out by qualified personnel.

Result

Acid-resistant rod-shaped bacteria: red

Background: blue

Precautionary measures

When removing the product, care must be taken to avoid contamination of the storage vessel. Once the solution has been removed, it must not be returned to the canister. If turbidity or solids appear, discard the product. The product is intended for single use and must not be reused.

Storage and shelf life

Store the unopened containers in a dry place at 15 to 25 °C, avoiding direct sunlight.

The shelf life is 2 years. See also the best-before date (BBD) on the label. Once the containers have been opened, the shelf life corresponds to the best-before date, as long as the storage conditions are observed and the solution is handled properly.

Safety notice

If any serious incidents occur in connection with the product, please report them to the manufacturer and the national authority.

Literature

Romeis, Mikroskopische Technik, Editors: Maria Mulisch, Ulrich Welsch, 2010, Springer Spektrum, 18th edition