



2C-173

Crystal purple solution, Neisser
In-vitro diagnostic agent

Description

The product 2C-173 is a ready-to-use solution for professional users for application in cytology. The product comes in 4 different pack sizes: 2C-173.00100 (100ml bottle), 2C- 173.00250 (250ml bottle), 2C-173.01000 (1000ml bottle), 2C-173.10000 (10l canister).

Main components

Ethanol (CAS no.: 64-17-5)	32 ml/l
Crystal purple (C.I.: 42555)	3.2g/L

Purpose

The "crystal purple solution, according to Neisser" is used for microbiological staining to show the polar bodies (metachromatic granules, polar bodies, polyphosphate granules) in the cytoplasm of gram-positive bacteria. The Neisser stain is used to identify diphtheria bacteria (*Corynebacterium diphtheriae*). It is a ready-to-use dye solution for professional users.

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: Bacteriological material from cytology (sputum, smears from fine needle aspiration biopsies (FNAB), irrigation fluids, imprints, effusions, pus, exudates, liquid and solid cultures after heat fixation or air drying.

Test principle

For staining, a working solution of Neisser solution I and Neisser solution II is mixed in a ratio of 2:1. The samples are stained with iron-methylene blue solution (Neisser solution I) and crystal purple solution (Neisser solution II). As a counterstain, staining with chrysoidin solution is suitable. Methylene blue and crystal purple are bound in the polar body structure, but not in the bacterial body. The polar bodies turn dark brown to black, and the rest of the bacterium is yellow-brown.

Staining

The heat-fixed specimens are stained with the prepared solution of critical purple solution and iron-methylene solution. The samples are then rinsed thoroughly with water. Counterstain with chrysoidin solution. After thorough rinsing in water, the samples are dried between filter paper.



Result

Polar body	dark brown to black
Bacterial body	brownish

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