



2C-288

Eosin 0.1%, alcoholic

In-vitro diagnostic agent

Description

The product 2C-288 is a ready-to-use solution for professional users for application in histology and cytology. It is an aqueous dye solution mixed with ethanol.

The product comes in 3 different pack sizes: 2C-288.00250 (250ml bottle), 2C-288.01000 (1l bottle) and 2C-288.05000 (5l canister).

Main components

Ethanol 99.8% denatured (CAS no.: 64-17-5)	1000 ml
Eosin Y (C.I.: 45380)	1g/l

Purpose

Eosin Y is used for the examination of histological and cytological specimen material such as histological sections. It is a ready-to-use dye solution for professional users. It can be used for counterstaining after previous nuclear staining with haematoxylin (HE 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: Sections of human tissue (3–4 µm thickness) after fixation for instance, by means of buffered formol and fixation mixtures with ethanol and formalin and subsequent embedding in paraffin or frozen sections, as well as smear material from cytology.

Test principle

Eosin (tetrabromofluorescein) is a negatively charged acidic dye and binds to positively charged structures, such as plasma proteins. Acidification of the solution intensifies the staining. However, an excessively acidic environment can prevent differentiation after previous nuclear staining, which is why HE staining is carried out at a pH of 4 to 6.

Eosin Y is the most important cytoplasmic dye. Connective tissue components such as collagen or keratin are also stained, as are core structures.

Staining

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



HE staining is done as regressive staining, i.e. a longer staining ("overstaining") with haematoxylin is carried out first in order to differentiate after blueing in tap water with eosin solution. After being rinsed again in tap water, the samples are transferred to xylene via an ascending ethanol series.

The samples can be covered with a synthetic covering medium for subsequent examination under a microscope.

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

Cytoplasm: pink-red

Erythrocytes: orange

Nuclei: blue/purple

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