



2C-140

Eosin, conc. aqueous 2%

In-vitro diagnostic agent

Description

The product 2C-140 is a ready-to-use solution for professional users for application in histology. It is an aqueous solution mixed with deionised water. The product comes in 4 different pack sizes: 2C-140.00100 (100ml bottle), 2C-140.00250 (250ml bottle), 2C- 140.01000 (1l bottle) and 2C-140.10000 (10l canister).

Main components

Deionised water (CAS no.: 7732-18-5)	1000 ml
Eosin G (C.I.: 45380)	20g/l

Purpose

The staining solution Eosin (2%, aqueous) is used for cell diagnostics for the examination of histological specimens (e.g. histological sections). The eosin staining solution is used to counterstain proteins, connective tissue, fibres and keratin after a core staining with haematoxylin. It is a ready-to-use dye solution for professional users. It can be used individually or in combination, for haematoxylin-eosin overview (H&E) staining routinely used in histology.

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 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 specimens.

Test principle

Together with haematoxylin, eosin is important for H&E overview staining. Eosin is regressively stained, correspondingly first overstained and then differentiated. The negatively charged dye eosin binds to the positively charged plasma proteins. Cytoplasm turns pink-red, while erythrocytes appear orange.

Staining

H&E staining is based on two individual stains. Haematoxylin is used for staining the cell nuclei and eosin for staining the cell plasma proteins. Before staining, deparaffinise the sections and transfer them to distilled water via a descending ethanol series. After staining, the samples are rinsed with haematoxylin (acidic, according to Meyer) in tap water. Subsequently, staining is carried out using eosin solution (2%, aqueous). The samples are rinsed once again in tap water and then transferred to xylene via an ascending ethanol series. 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

Cytoplasm	pink-red
Erythrocytes	orange

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