



## 2E-038

Mayer's haemalaun solution, acidic

In-vitro diagnostic agent

### Description

The product 2E-038 is a ready-to-use solution for professional users for application in histology. The product comes in 6 different pack sizes: 2E-038.00100 (100ml bottle), 2E-038.00250 (250ml bottle), 2E-038.01000 (1l bottle), 2E-038.02500 (2.5l bottle), 2E-038.05000 (5l canister) and 2E-038.10000 (10l canister).

### Main components

Haematoxylin (C.I.: 75290)	1.1g/l
Potassium alum (CAS No.: 7784-24-9)	50.0g/l
Chloral hydrate (CAS No.: 302-17-0)	50g/l
Citric acid (CAS No.: 77-92-9)	1.0g/l
Potassium iodate p.a. (CAS No.: 7758-05-6)	0.22g/l

### Purpose

"Mayer's haemalaun solution, acidic" is used for cell diagnostics for the examination of histological samples (e.g. histological sections). It is a ready-to-use dye solution for professional users. It can be used for the haematoxylin-eosin overview staining routinely used in histology, either individually or in combination with eosin.

### 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 example by buffered formol and fixation mixtures with ethanol and formalin and subsequent embedding in paraffin or frozen sections, as well as clinical material from cytology.

### Test principle

First, the positively charged nuclear dye (haematoxylin) binds to the negatively charged phosphate groups of the nucleic acids of the cell nucleus and colours them dark blue to dark purple. Counterstaining is achieved with a negatively charged anionic xanthene dye (eosin G, eosin B or erythrosin B), which binds to the positively charged plasma proteins. Cytoplasm and intercellular substance turn pink to red, erythrocytes appear yellow-orange or red-orange.

### Staining

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

After being stained with Mayer's haematoxylin solution, the samples are washed under running tap water. After they have been washed under running tap water, the samples can optionally be counterstained with Eosin-G solution (0.2/0.5/1.0/2.0% aqueous or 0.2/1.0/2.0% alcoholic or 0.5/10.0% methanolic) and washed again



under running tap water. The samples are then 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

Cell nuclei	dark blue to dark purple
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## 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

