



## 5A-238

Orcein purum, synthetic

In-vitro diagnostic agent

### Description

The product 5A-238 is a dry dye for the preparation of a staining solution for professional users for histology applications. The product comes in 7 different pack sizes: 5A-238.00005 (5g bottle), 5A-238.00010 (10g bottle), 5A-238.00025 (25g bottle), 5A-238.00100 (100g bottle), 5A-238.00500 (500g bottle), 5A-238.01000 (1kg bucket) and 5A-238.05000 (5kg drum).

### Main components

Orcein (CI Natural Red 28)

### Purpose

Staining by means of "Orcein purum, synthetic" is used for presentation for cell diagnostics for the examination of histological specimens (e.g. histological sections) of human origin. Staining with Orcein purum solution allows the visualisation of elastic fibres. It is a dry dye for preparing a staining 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: Sections of human tissue (3–4  $\mu\text{m}$  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.

### Test principle

The elastomucin of elastic fibres is strongly acidic and causes tension in the fibres. The dye orcein purum is dissolved in 70% ethanol with conc. hydrochloric acid (1%).

The basic dye orcein purum (synthetic) attaches to the acidic component by interfacial and electroabsorption and stains the elastic fibres red-brown. Nuclear Fast Red is also used for nuclear staining.

### Staining

Before staining, deparaffinise the sections and rehydrate them via a descending ethanol series. After nuclear staining with Orcein purum (synthetic), the samples are transferred to distilled water. The samples are transferred to isopropanol solution (96%), which allows elastic fibres to be differentiated.

Excess colour residues are removed by immersion in distilled water. The samples are then stained with a Nuclear Fast Red solution and transferred again to distilled water. Finally, the samples are dehydrated via an ascending ethanol series and transferred to xylene.



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	red
Elastic fibres	red-brown
Remaining tissue	pink

## 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 5 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