



## 2E-012

### Nuclear Fast Red aluminium sulphate solution

#### In-vitro diagnostic agent

#### Description

The product 2E-012 is a ready-to-use solution for professional users for application in histology. It is an aqueous dye solution mixed with aluminium sulphate. The product comes in 6 different pack sizes: 2E-012.00100 (100ml bottle), 2E-012.00250 (250ml bottle), 2E-012.00500 (500ml bottle), 2E-012.01000 (1l bottle), 2E-012.05000 (5l canister). and 2E-012.10000 (10l canister).

#### Main components

Aluminium sulphate ( $\text{Al}_2(\text{SO}_4)_3 \times 18 \text{ H}_2\text{O}$ )	50 g/l
Nuclear Fast Red (C.I.60760)	0.8 g/l

#### Purpose

The "Nuclear Fast Red aluminium sulphate solution 0.1%" 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 as a counterstain for histochemical reactions (e.g. Berlin blue staining for iron detection or silvering). Nuclear Fast Red aluminium sulphate solution 0.1% is also used as a nucleus dye for Alcian blue stainings.

#### 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 (3–5  $\mu\text{m}$  thickness) after fixation, for instance by means of buffered formol and fixation mixtures with ethanol and formalin and subsequent embedding in paraffin, as well as fresh, native blood or bone marrow smears.

#### Test principle

For counterstaining the cell components (representation of the cell nuclei), Nuclear Fast Red is prepared beforehand with aluminium sulphate as a mordant. The result is a colour coating that stains nuclear chromatin red.

#### Staining

Before staining, deparaffinise the sections and transfer them to distilled water via a descending ethanol series. After staining with Alcian blue solution, the samples are washed in distilled water, counterstained with Nuclear Fast Red aluminium sulphate solution 0.1% and washed again in distilled water. After being washed in distilled 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

Cell nuclei  
Acid mucosubstances

red  
light blue

## 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

