



## 2C-005

Alcian Blue solution (1%)  
In Vitro Diagnostic



### Description

The product 2C-005 is a ready-to-use solution for professional use in histology. It is an acetic acid added aqueous dye solution with a pH of 2.5. The product is supplied in 4 different pack sizes: 2C-005.00100 (100 ml bottle), 2C-005.00250 (250 ml bottle), 2C-005.01000 (1 L bottle) and 2C-005.1000 (10 L canister).

### Main components

Alcian blue (C.I. 74240)	10 g/L
Acetic acid (C <sub>2</sub> H <sub>4</sub> O <sub>2</sub> )	30 ml/L
pH 2.5	

### Intended use

The Alcian blue solution (1%) is used in cell diagnostics for examining histological specimens (e.g. histological sections). It is a ready-to-use dye solution for professional use. It can be used for staining mucopolysaccharides (mucins).

### Sample material and sample preparation

Samples may only be taken by qualified personnel. All samples must be handled according to the state of the art. All samples must be clearly labelled.

Sample material: Sections of human tissue (3 - 5 µm thickness) after fixation with, for example, buffered formol and fixation mixtures with ethanol and formalin and subsequent embedding in paraffin.

### Test principle

The positively charged dye Alcian blue binds to the acidic mucins and stains them blue. This produces a qualitative result.

Nuclear red is a suitable counterstain.

### Staining

Before staining, the sections must be deparaffinised and transferred to distilled water using a descending ethanol series. After being stained with the Alcian blue solution, the samples are washed in distilled water, counterstained with nuclear red 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 the subsequent microscopy.

Suitable control preparations should be carried along with the staining to ensure that the target structures can be differentiated.

The usual staining protocols known from literature must be used.

The staining may only be carried out by qualified personnel.

## Result

Acid mucosubstances blue

It is not possible to distinguish between carboxyl and sulphate groups at pH 2.5.

## Precautions

When withdrawing the product, care must be taken to avoid contaminating the storage container. Once the solution has been removed, it must not be returned to the canister. If there is any cloudiness or sediment present, the product must be discarded. The product is intended for single use and must not be reused.

## Storage & shelf life

Store the unopened containers in a dry place at 15 to 25°C and away from direct sunlight.

The shelf life is 2 years, see also the best-before date (BBD) on the label. After opening the containers, the shelf life corresponds to the best-before date, provided that the storage conditions are observed and the solution is handled properly.

## Safety notice

If any serious incidents occur related to 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

