

Version 4 Last updated 2 September 2020

ab150661 Alcian Blue (pH 1.0) (Mucin Stain)

For the histological visualization of strongly sulfated mucosubstances

This product is for research use only and is not intended for diagnostic use.

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1. Overview

The Alcian Blue (pH 1.0) (Mucin Stain) is intended for use in the histological visualization of strongly sulfated mucosubstances. Alcian blue staining at pH 1.0 differs from staining at pH 2.5, in that carboxylated mucins are protonated and only sulfated mucins are still ionized and therefore stained.

Staining Interpretation:

| | |
|---------------------------------|------|
| Strongly Sulfate Mucosubstances | Blue |
| Nuclei | Red |
| Background | Pink |

Control Tissue:

Tissue known to be positive for sulfated mucins. e.g. deep mucosa of colon.

2. Materials Supplied and Storage

Store kit at Room temperature immediately on receipt and check below for storage for individual components. Kit can be stored for 1 year from receipt, if components have not been reconstituted.

Keep away from open flame and refer to the safety datasheet.

| Item | Quantity | Storage temperature (before prep) | Storage temperature (after prep) |
|-------------------------------|----------|-----------------------------------|----------------------------------|
| Alcian Blue, pH 1.0 | 250 mL | RT | RT |
| Nuclear Fast Red | 250 mL | RT | RT |
| 1M Hydrochloric Acid Solution | 250 mL | RT | RT |

3. Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- Synthetic Resin
- Distilled Water

4. General guidelines, precautions, and troubleshooting

Please observe safe laboratory practice and consult the safety datasheet.

For general guidelines, precautions, limitations on the use of our assay kits and general assay troubleshooting tips, particularly for first time users, please consult our guide:

www.abcam.com/assaykitguidelines

For typical data produced using the assay, please see the assay kit datasheet on our website.

5. Assay Procedure

- Equilibrate all materials and prepared reagents to room temperature just prior to use and gently agitate.
 - Maintaining proper pH is critical to preventing false-positive mucin staining. 'Working Rinse Solution' should fall within pH 1.0 ± 0.15 and is used both before and after the Alcian blue to control pH. Rinsing with deionized water or any other rinse may affect pH and cause non-specific staining. We recommend running at least one slide without the counterstain to compare intensity with slides that have been counterstained.
- 5.1 Deparaffinize sections if necessary and hydrate in distilled water.
 - 5.2 Make up sufficient amount of 'Working Rinse Solution' by adding 1 part of 1M Hydrochloric Acid Solution into 9 parts deionized water for a Working Rinse solution. We suggest making at least 10 mL per slide.
 - 5.3 Apply 'Working Rinse Solution' to tissue for 30 seconds to adjust pH in preparation for staining. Save remaining 'Working Rinse Solution' for step 5.5.
 - 5.4 Drain slide and without rinsing, stain tissue section with Alcian Blue Solution (pH 1.0) solution for 30 minutes.
 - 5.5 Briefly but thoroughly rinse stain off slide using remaining 'Working Rinse Solution'.
 - 5.6 Carefully blot and allow slide to air dry.
 - 5.7 If preferred, counter stain in Nuclear Fast Red (Enhanced Stability) for 1-2 minutes with occasional agitation.
 - 5.8 Rinse very briefly in deionized water and allow to completely air dry again.
 - 5.9 Clear, and mount in synthetic resin.

6. FAQs / Troubleshooting

General troubleshooting points are found at www.abcam.com/assaykitguidelines

7. Notes

Technical Support

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