



VitroVivo Biotech

Make Tissues, Cells, Genes and Molecules Visible

VitroView™ Alcian Blue and PAS Stain Kit

SKU#: VB-3005

Description:

Alcian Blue and PAS Stain is a combined method utilising the properties of both the Periodic Acid (PAS) and Alcian blue methods to demonstrate the full complement of tissue proteoglycans. The rationale of the technique is that by first staining all the acidic mucins with Alcian blue, those remaining acidic mucins which are also PAS positive will be chemically blocked and will not react further during the technique. Those neutral mucins which are solely PAS positive will subsequently be demonstrated in a contrasting manner. Where mixtures occur, the resultant colour will depend upon the dominant moiety.

The combined result from the *port-manteau* method demonstrates both acidic- neutral- and mixtures of acidic and neutral mucins.

Kit Contents:

- VB-3005-1 Alcian Blue Solution -----250 ml
- VB-3005-2 Schiff Reagent -----250 ml
- VB-3005-3 Periodic Acid Solution-----250 ml
- VB-3005-4 Mayer's hematoxylin solution—250ml

Storage

Room temperature.

Protocol:

1. Deparaffinize in Xylene I for 6 minutes and II for 6 minutes.
2. Rehydrate
 - a. Ethanol 100% (2 minutes)
 - b. Ethanol 100% (2 minutes)
 - c. Ethanol 95% (2 minutes)
 - d. Ethanol 95% (2 minutes)
 - e. Ethanol 70% (2 minutes)
3. Rinse in distilled water (5 minutes).
4. Stain with Alcian blue solution for 15 mins
5. Wash well in running tap water for 2 mins
6. Rinse in distilled water
7. Treat with periodic acid solution for 5 mins
8. Rinse in distilled water
9. Stain with Schiff's reagent for 10 mins
10. Rinse in running tap water for 5 mins
11. Counterstain in Mayer's hematoxylin for 1 minute.
12. Wash in tap water for 5 minutes.
13. Dehydrate and Clear with 3 changes of xylene (5 minute per change)
14. Mount coverslip onto glass slide with Permount or some other suitable organic mounting medium.

RESULTS:

- acidic mucins blue
- neutral mucins magenta
- mixtures of above blue/purple
- nuclei deep blue

Technical Points

Diastase pre-treatment may be used to eliminate the presence of glycogen, prior to staining in Alcian blue.