

E-330 PAS-ALCIAN BLUE METHOD FOR MUCOSUBSTANCES

FIXATION: **10% Buffered Neutral Formalin** (F-113)

SECTION: Paraffin, @ 6 microns

STAINING PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Stain in **Alcian Blue Solution, pH 1.0** (E-330-3A) or **Alcian Blue, pH 2.5** (E-330-3) for 30 minutes.
3. If **Alcian Blue Solution, pH 1.0** is used, blot section dry with filter paper. If **Alcian Blue Solution pH 2.5** is used wash in water for 5 minutes.
4. Oxidize in **Periodic Acid, 1%**, (E-330-1) for 10 minutes. Wash in running water for 5 minutes.
5. **Schiff's Reagent**, (E-330-2) for 10 minutes.
6. Rinse in **Sodium Metabisulfite, 0.5%, Aqueous**, (E-330-4) three changes, two minutes each. Wash in running water for ten minutes.
7. Dehydrate in 95% Alcohol, Absolute Alcohol and clear in Xylene, two changes each.
8. Mount with **Permount** (M-18).

RESULTS:

PAS-Alcian Blue pH 2.5 – All polysaccharides and mucosubstances containing hexoses or deoxyhexoses with vicinal glycol groups stain magenta to red. Mucosubstances staining red include neutral mucosubstances. Hyaluronic acid, sialomucins and all but the most strongly acidic sulfated mucosubstances stain blue.

PAS-Alcian Blue pH 1.0 - PAS positive same as above. Alciphilic substances at this pH include only the sulphated mucosaccharides.

REFERENCES:

AFIP Manual of Histological Staining Methods, 3rd ed., Ed. L. Luna: New York: McGraw Hill Publications, c. 1968, p. 168.

Lev, R., & Spicer, S.S. J. Histochem. Cytochem., 12:309, 1964.