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E-329 MODIFICATION OF MOWREY'S 1958  
COLLOIDAL IRON STAIN FOR ACID  
MUCOPOLYSACCHARIDES

**FIXATION:** 10% Buffered Neutral Formalin (F-113) or 95% Alcohol. Bichromate fixatives should be avoided.

**SECTION:** Paraffin at 6 microns

**STAINING PROCEDURE:** (use control slide)

1. Deparaffinize and hydrate to distilled water.
2. Rinse in **Acetic Acid, 12%**, (E-329-6) for three minutes.
3. Place in working Colloidal Iron Solution for one hour.  
Prepare working solution by mixing, just before use:

<b>Muller's Colloidal Iron Stock</b> , (E-329-2)	20ml
Distilled Water	15ml
Glacial Acetic Acid	5ml
4. Rinse in **Acetic Acid, 12%**, (E-329-6) for four changes, three minutes each.
5. Place in Hydrochloric Acid-Potassium Ferrocyanide Solution for 20 minutes. Wash in tap water for five minutes, then rinse in distilled water.  
Prepare Hydrochloric Acid-Potassium Ferrocyanide Solution by mixing just before use:

<b>Potassium Ferrocyanide, 5%, Aqueous</b> , (E-329-4)	50ml
<b>Hydrochloric Acid, 5%</b> , (E-329-5)	50ml
6. Counterstain with **Van Gieson's Solution**, (E-329-3) for five to seven minutes.
7. Without washing, pass quickly to 95% Alcohol, Absolute Alcohol and clear in Xylene (C-120) two changes each.
8. Mount with Permount (M-18).

**RESULTS:**

Acidic Mucopolysaccharides and Acidic Epithelial Mucins.....deep blue  
Background depending on counterstain used.

**REFERENCES:**

AFIP, Manual of Histological Staining Methods, 3<sup>rd</sup> ed., Ed. L. Luna:  
New York: McGraw Hill Publications, c. 1968, p. 167.