

ROWLEY
BIOCHEMICAL
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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:

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|--|------|
| Muller's Colloidal Iron Stock , (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:

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|--|------|
| Potassium Ferrocyanide, 5%, Aqueous , (E-329-4) | 50ml |
| Hydrochloric Acid, 5% , (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, 3rd ed., Ed. L. Luna:
New York: McGraw Hill Publications, c. 1968, p. 167.