Diagnostic BioSystems

Instructions For Use

KT 007-IFU

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Colloidal Iron Stain Kit

Description and Principle

The Colloidal Iron Stain Kit is designed for the histological visualization of acid mucopolysaccharides.
Colloidal ferric ions in a low pH solution bind to acidic mucosubstances. Bound ferric iron reacts with an acidic solution of potassium ferrocyanide to form an insoluble blue product called Prussian Blue.

Expected Results

Acidic Mucopolysaccharides:	Blue
Collagen:	Red

Kit Contents

	Storage
1. Acetic Acid Solution (12%)	15-30°C
2. Hydrochloric Acid Solution (1N)	15-30°C
3. Potassium Ferrocyanide (3%)	15-30°C
4. Colloidal Iron Stock Solution	15-30°C
5. Van Gieson's Stain	15-30°C.

Suggested Controls *(not provided)*

Small Intestine, Colon

Uses/Limitations

For In-Vitro Diagnostic use only.
Do not use if reagents become cloudy or precipitate
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile
Intended for FFPE sections cut at 5-10µm.
This procedure has not been optimized for frozen sections.
Frozen sections may require protocol modification.

Storage

Store kit and all components at room temperature (15-30°C).

Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements. If there is any serious incident that has occurred in relation to the device, please contact the manufacturer: Diagnostic BioSystems Technical Support at (925) 484-3350, extension 2 or techsupport@dbiosys.com. If required, please report to the Competent Authority of the Member State in which the user and/or patient is established.

Prepare the Following Solutions Immediately Before Use.

Working Colloidal Iron Solution:

1 part	Acetic Acid Solution (12%)
3 parts	Distilled Water
4 parts	Colloidal Iron Stock Solution

Example: 1ml Acetic Acid Solution (12%), 3mls Distilled Water, 4mls Colloidal Iron Stock Solution.

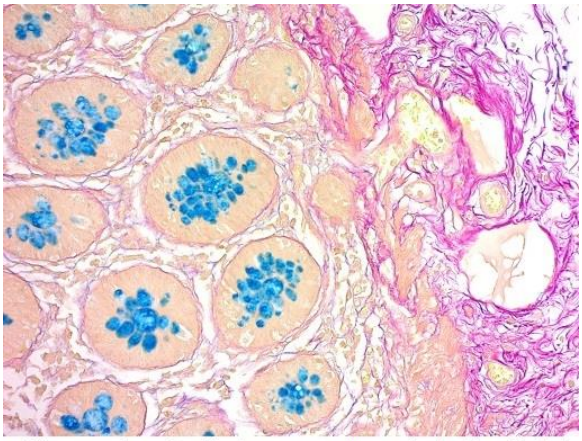
Example (dropper): 5 drops Acetic Acid Solution (200µl), 15 drops Distilled Water (600µl), 20 drops Colloidal Iron Stock Solution (800µl).
Total: 1600µl or 1.60ml. (1 drop = ~40µl)

Procedure

1. Deparaffinize sections if necessary and hydrate to distilled water.

2. Cover tissue section with Acetic Acid Solution (12%) for 30 seconds.

3. Place slide in Working Colloidal Iron Solution for 30 minutes with occasional gentle agitation. Use once and discard.



Acid mucopolysaccharides in Human Colon stained with Colloidal Iron Stain Kit

4. Rinse thoroughly in 3 changes of Acetic Acid Solution (12%) for 2 minutes each.

5. Mix equal volumes of Hydrochloric Acid Solution (1N) and Potassium Ferrocyanide (3%) to make a Working Iron Stain Solution.

6. Stain slide in Working Iron Stain Solution for 10 minutes with occasional gentle agitation. Use once and discard.

7. Rinse in 3 changes of distilled water.

8. Stain tissue section with Van Gieson's Stain for 30 seconds.

9. Dehydrate in 3 changes of absolute alcohol.

10. Clear, and mount in synthetic resin.

References

1.Muller, G. ACTA Histochem (Jena); 2:68, 1955
2.Tickoo, S.K., et al. Colloidal iron staining in renal epithelial neoplasms, including chromophobe renal cell carcinoma: emphasis on technique and patterns of staining. American Journal of Surgical Pathology, 1998 April; 22(4): pages 419-424.

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