Diagnostic BioSystems

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Colloidal Iron Stain Kit

Catalog Number: KT007

**This data sheet is applicable to all sizes (volume) of product. Actual volume is indicated on vial.

Document #: DS-3004-B
Effective Date: 3/15/2017

Intended Use
For In Vitro Diagnostic Use

Summary and Explanation
The Colloidal Iron Stain Kit is designed for the histological visualization of acid mucopolysaccharides.

Acid Mucopolysaccharides: Blue
Collagen: Red-Purple

Control Tissue
Tissues fixed in 10% formalin are suitable for use prior to paraffin embedding. Consult references (Kiernan, 1981: Sheehan & Hrapchak, 1980) for further details on specimen preparation.

1. Cut sections, usually 3 to 5 µm and pick the sections up on glass slides.
2. Bake the slides for at least 30 minutes at approximately 70°C.
3. Allow to cool.

Recommended Positive Control
1. Colon
2. Small Intestine

Reagents Provided

Kit Contents	Volume	Storage
Acetic Acid Solution (12%)	500 mL	15-30°C
Hydrochloric Acid Solution (1N)	125 mL	15-30°C
Potassium Ferrocyanide Solution (3%)	125 mL	15-30°C
Colloidal Iron Stock Solution	125 mL	15-30°C
Van Gieson's Solution	125 mL	15-30°C

Storage and Handling
Do not use product after the expiration date printed on vial. If reagents are stored under conditions other than those specified here, they must be verified by the user. Diluted reagents should be used promptly.

Prepare the Following Solutions Immediately Before Use

1. Working Colloidal Iron Solution:
I. 5 ml Acetic Acid Solution (12%)
II. 15 ml Distilled Water
III. 20 ml Colloidal Iron Stock Solution

2. Working Iron Stain Solution:
I. 20 ml Hydrochloric Acid Solution (1N)
II. 20 ml Potassium Ferrocyanide Solution (3%)

Staining Procedure
1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Place slide in Acetic Acid Solution (12%) for 30 seconds. Use once and discard.
3. Place slide in Working Colloidal Iron Solution for 30 minutes. Agitate solution several times during staining. Use once and discard.
4. Rinse thoroughly in 3 changes of Acetic Acid Solution (12%) for 2 minutes each. Use once and discard.
5. Place slides in Working Iron Stain Solution for 10 minutes. Agitate solution. Use once and discard.
6. Rinse in 3 changes of distilled water.
7. Stain slides in Van Gieson's Solution for 30-45 seconds.
8. Dehydrate in 3 changes of absolute alcohol.
9. Clear, and mount in synthetic resin.

Limitations of the Procedure
1. Histological staining is a multiple step diagnostic process that requires specialized training in the selection of the appropriate reagents, tissue selections, fixation, processing, preparation of the slide, and interpretation of the staining results.
2. Tissue staining is dependent on the handling and processing of the tissue prior to staining.
3. Improper fixation, freezing, thawing, washing, drying, heating, sectioning, or contamination with other tissues or fluids may produce artifacts or false negative results.
4. The clinical interpretation of any positive staining, or its absence, must be evaluated within the context of clinical history, morphology and other histopathological criteria. It is the responsibility of a qualified pathologist to be familiar with the special stain and methods used to produce the slide.
5. Staining must be performed in a certified licensed laboratory under the supervision of a pathologist who is responsible for reviewing the stained slides and assuring the adequacy of positive and negative controls.

Precautions
1. Consult local and/or state authorities with regard to recommended method of disposal.
2. Materials of human or animal origin should be handled as biohazardous materials and disposed of with proper precautions.
3. Avoid microbial contamination of reagents. Contamination could produce erroneous results.
4. This reagent may cause irritation. Avoid contact with eyes and mucous membranes.
5. If reagent contacts these areas, rinse with copious amounts of water.
6. Do not ingest or inhale any reagents.
7. Use in a chemical fume hood whenever possible.

Troubleshooting
If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem is suspected, contact Diagnostic BioSystems Technical Support at (925) 484-3350, extension 2 or techsupport@dbiosys.com.

References:
I. Muller, G. ACTA Histochem (Jena); 2:68, 1955.

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