

Mucicarmine Stain Kit

Catalog Number: KT024

Document #: DS-3017-B
Effective Date: 08/17/2016

Intended Use

For In Vitro Diagnostic Use

Summary and Explanation

Mucicarmine Stain Kit is intended for use in the histological visualization of acid mucopolysaccharides in tissue sections. This product is useful in distinguishing mucin negative undifferentiated squamous cell lesions from mucin positive adenocarcinomas. In addition, this product will stain the mucopolysaccharide capsule of *Cryptococcus neoformans*.

Mucin: Pink/Red
Capsule of *Cryptococcus*: Red
Nuclei: Blue
Other tissue components: Yellow

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. Intestine
3. Bronchi Epithelial cells

Reagents Provided

Kit Contents	Volume	Storage
Hematoxylin, Mayer's (Lillie's)	125 mL	15-30°C
Bluing Reagent	125 mL	15-30°C
Mucicarmine Solution	125 mL	2-8°C
Tartrazine 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.

Staining Procedure

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. If sections are Zenker-fixed, remove mercuric chloride crystals using iodine and clear with sodium thiosulfate. Rinse in running tap water.
3. Stain slide in Hematoxylin for 2-3 minutes.
4. Rinse for 2 minutes in running tap water.
5. Apply Bluing Reagent for 10-15 seconds.
6. Rinse slide in distilled water.
7. Stain slide in Mucicarmine Solution for 10 minutes.

8. Rinse quickly in tap water followed by a quick rinse in distilled water.
9. Stain slide in Tartrazine Solution for 1 minute.
10. Rinse quickly in tap water followed by a quick rinse in distilled water.
11. Dehydrate through graded alcohols.
12. 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.

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

1. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2nd Edition. Battelle Press, Columbus, OH. Pages 172-173.

