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Part 4135
Revised January 2020

Cryptococcus sp. Control Slides – Technical Memo

CONTROL SLIDES:

Part 4135A	**Part 4135B**
10 Slide/Set	98 Slide/Set

PRODUCT SPECIFICATIONS:
Tissue: Positive staining lung and negative staining lung.
Fixation: Formalin 10%, Phosphate Buffered (Part 1090).
Section/Glass: Paraffin sections cut at 4 microns on Superfrost™ Plus slides.
Quality Control Stain: Mayer Mucicarmine quality control stained slide(s) included.
Reactivity: Guaranteed product specific reactivity for one year from date of receipt. Revalidate after one year to verify continued reactivity.
Storage: 15-30°C in a light deprived and humidity controlled environment.
Intended Use: To verify histological techniques and reagent reactivity.

Before using unstained control slides, review the enclosed stained slide(s) to ensure that this tissue source is acceptable for testing needs. .

CONTROL SLIDE VALIDATION:

With Mucin, Mayer Mucicarmine Stain Kit:	**Part 9151A/B**	**Individual Stain Solution**
Solution A: Ferric Chloride, Aqueous	125/250 ml	Part 1409
Solution B: Hematoxylin 1%, Alcoholic	125/250 ml	Part 1409
Solution C: Mucicarmine Stock Stain, Mayer	125/125 ml	Part 1250
Solution D: Metanil Yellow Stain, Aqueous	250/500 ml	Part 12235

APPLICATION:

Newcomer Supply *Cryptococcus sp.*, Control Slides are for the positive histochemical staining of fungal organisms. The morphology of the organism is consistent with *Cryptococcus sp.*

NEWCOMER SUPPLY VALIDATION PROCEDURE:

1. Heat dry sections in oven according to your laboratory protocol.
2. Deparaffinize sections thoroughly in three changes of xylene, 3 minutes each. Hydrate through two changes each of 100% and 95% ethyl alcohols, 10 dips each. Wash well with distilled water.
   a. *See Procedure Notes #1 and #2.*
3. Prepare fresh Weigert Iron Hematoxylin Working Solution directly before use; combine and mix well:
   a. *Solution A: Ferric Chloride, Aqueous* *20 ml*
   b. *Solution B: Hematoxylin 1%, Alcoholic* *20 ml*
4. Stain in Weigert Iron Hematoxylin Working Solution for 7 minutes.
5. Rinse in running tap water for 10 minutes.
6. Prepare fresh Mayer Mucicarmine Working Solution; combine and mix well:
   a. *Solution C: Mucicarmine Stock Stain, Mayer* *10 ml*
   b. ***Tap Water*** *(do not use distilled water)* *30 ml*
7. Stain slides in fresh Mayer Mucicarmine Working Solution for 60 minutes or longer if a more intense stain is desired.
   Microwave Modification: *See Procedure Note #3.*
   a. *Place slides in a plastic Coplin jar containing fresh Mayer Mucicarmine Working Solution and microwave at 70°C for 10 minutes.*
8. Rinse in several changes of tap water.
9. Counterstain in Solution D: Metanil Yellow Stain, Aqueous for 30 seconds to 1 minute.
10. Dehydrate quickly through 95% and 100% ethyl alcohols. Clear in three changes of xylene, 10 dips each; coverslip with compatible mounting medium.

RESULTS:

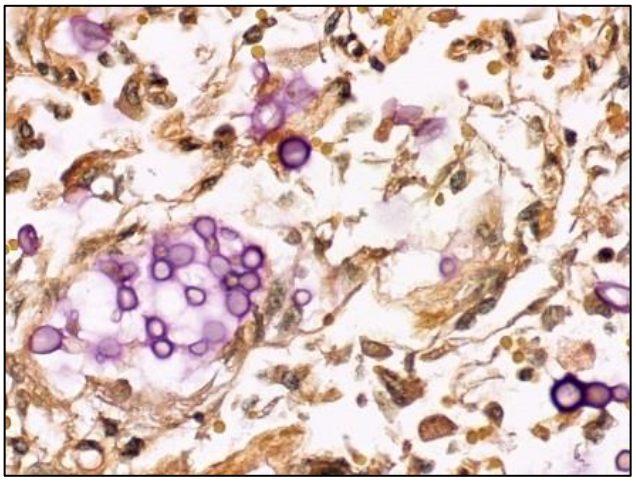
Capsule of *Cryptococcus sp.*	Deep rose to red
Nuclei	Black
Other tissue elements	Yellow
Negative lung	Negative for fungus

PROCEDURE NOTES:

1. Drain staining slides after each step to prevent solution carry over.
2. Do not allow sections to dry out at any point during procedure.
3. The suggested microwave procedure has been tested at Newcomer Supply. This procedure is a guideline and techniques should be developed for use in your laboratory.
4. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

REFERENCES:

1. Carson, Freida L., and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009. 142-144.
2. Luna, Lee G. *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*. 3rd ed. New York: Blakiston Division, McGraw-Hill, 1968. 161-162.
3. Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 168-169.
4. Modifications developed by Newcomer Supply Laboratory.



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