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Part 4412
Revised January 2018

Mast Cell, Animal Control Slides – Technical Memo

CONTROL SLIDES:

Part 4412A	**Part 4412B**
10 Slide/Set	98 Slide/Set

Mast Cell, Animal Control Slides contain a section of positive staining animal tumor.

PRODUCT DESCRIPTION:

The enclosed positive control slides are intended to be used to verify histological techniques and reagent reactivity. These slides are to be used for the qualitative purpose of determining positive or negative results, and are not intended to be used for any quantitative purpose. The first serial section within the control box is stained and provided for your reference. ***Before using the unstained slides, review the enclosed stained slide with your pathologist to ensure that this tissue source is acceptable. Newcomer Supply will not accept a return with missing slides in the series. Newcomer Supply guarantees reactivity of these control slides for one year from the date of receipt. Revalidate after one year to verify continued reactivity. Store at 15-30°C in a light deprived and humidity controlled environment.***

The positive control sections were produced from animal tissues under carefully controlled conditions. Reasonable measures are used to deliver quality control slides that are as consistent as possible. However, characteristics of quality control slides may be dissimilar due to variations in the reagents, stains, techniques, laboratory conditions, and tissue sources used. Newcomer Supply Laboratory uses a manual method of performing quality control procedures, specifically avoiding automation, in order to provide reactive control slides for even less aggressive methods of staining that our customers may be using.

CONTROL SLIDE VALIDATION:

With Toluidine Blue Stain for Mast Cells:	**Individual Stain Solution**
Toluidine Blue Stain 0.1%, Aqueous	Part 14027

For storage requirements and expiration date refer to individual product labels.

APPLICATION:

Newcomer Supply Mast Cell, Animal Control Slides are for the positive histochemical staining of mast cells, cells filled with basophilic granules associated with inflammation and allergic reactions, which stain metachromatically with toluidine blue.

METHOD:

Fixation: Formalin 10%, Phosphate Buffered (Part 1090)
Technique: Paraffin sections cut at 5 microns on Superfrost® Plus
Solutions: All solutions are manufactured by Newcomer Supply, Inc.

NEWCOMER SUPPLY VALIDATION PROCEDURE:

1. 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.*
2. Place slides in Toluidine Blue Stain 0.1%, Aqueous for 10 minutes.
3. Rinse well in distilled water.
4. Dehydrate quickly through two changes each of 95% and 100% ethyl alcohol. Clear in three changes of xylene, 10 dips each; coverslip with compatible mounting medium.
    a. *See Procedure Note #3.*

RESULTS:

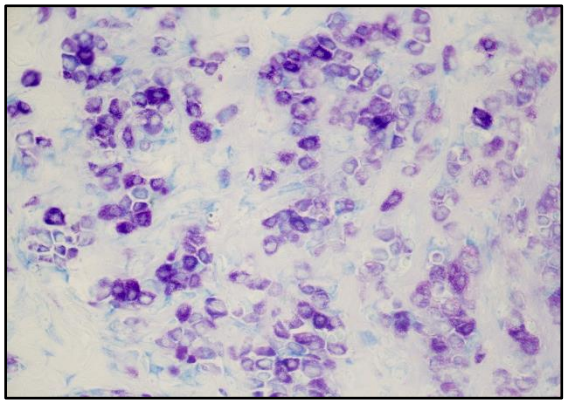
Mast cells	Deep rose-violet
Background	Blue

PROCEDURE NOTES:

1. Drain staining rack/slides after each step to prevent solution carry over.
2. Do not allow sections to dry out at any point during staining procedure.
3. Metachromasia of mast cell granules is stable and will maintain staining during dehydration steps.
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, 2009.188.
2. Modifications developed by Newcomer Supply Laboratory.



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