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Part 3165
Revised June 2017

Cat Scratch *Bartonella sp*., Artificial Control Slides – Technical Memo

CONTROL SLIDES:

Part 3165A	**Part 3165B**
10 Slide/Set	98 Slide/Set

Cat Scratch *Bartonella sp*., Artificial Control Slides contain sections of positive staining rat lung and negative staining human lung.

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.***

These Cat Scratch *Bartonella sp.* control slides were produced at the Newcomer Supply Laboratory under carefully controlled conditions. The positive control sections are not human tissue. The microorganisms were grown in pure culture, harvested, formalized and introduced in a freshly harvested rat lung. No infective process occurred. *Bartonella sp.* was used to produce these control slides, and was purchased from the American Type Culture Collection (ATCC® 49793™). 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.

APPLICATION:

Newcomer Supply Cat Scratch *Bartonella sp*., Artificial Control Slides are for the immunohistochemical positive staining and qualitative identification of proteins of *Bartonella sp.*, the causative bacterial agent of Cat Scratch disease.

METHOD:

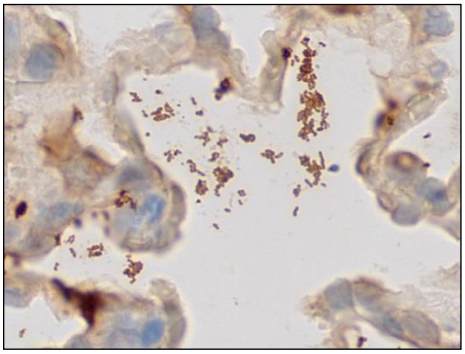
Fixation: Formalin 10%, Phosphate Buffered (Part 1090)
Technique: Paraffin sections cut at 4 microns on Superfrost® Plus

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 Note #1.*
2. Proceed, if necessary, with an epitope/antigen retrieval technique approved for use in your laboratory.
3. Rinse in distilled water; tap off excess water.
4. Circle sections with Pap Pen Liquid Blocker (Part 6505, 6506 or 6507) to reduce reagent usage and ensure tissue coverage.
5. Block endogenous peroxidase with freshly made 3% Hydrogen Peroxide. Incubate for 5 minutes.
    a. *See Procedure Note #2.*
6. Wash slides gently in distilled water. Rinse in two changes of Tris Buffered Saline.
    a. *See Procedure Note #3.*
7. Tap off excess buffer; apply Cat Scratch primary antibody. Incubate at room temperature for 30 minutes.
8. Rinse slides in two changes of buffer.
9. Tap off excess buffer; apply Amplifier. Incubate for 10 minutes.
10. Rinse slides in two changes of buffer.
11. Tap off excess buffer; apply HRP Polymer. Incubate for 10 minutes.
12. Rinse slides in two changes of buffer.
13. Prepare required quantity of DAB substrate/chromogen.
14. Tap off excess buffer; apply DAB. Incubate for 5 minutes.
15. Rinse slides in four changes of distilled water.
16. Counterstain lightly with Hematoxylin Stain, Gill I (Part 1180) for 5 minutes.
17. Rinse slides in warm tap water to blue sections.
18. Dehydrate in two changes each of 95% and 100% ethyl alcohol. Clear in three changes of xylene, 10 dips each; coverslip with compatible mounting medium.

RESULTS:

Bartonella sp positive expression	Brown
Human lung	Negative
Nuclei	Blue



PROCEDURE NOTES:

1. Do not allow sections to dry out at any point during staining procedure.
2. Dilute sufficient Hydrogen Peroxide 30%, Aqueous (Part 1206) with distilled water to a 3% (1/10) solution prior to use.
3. Dilute sufficient Tris Buffered Saline 0.05M, pH 7.6, 10X (Part 140304) with distilled water to a 1/10 solution prior to use for all buffer rinses in this procedure.
4. Biocare Medical Cat Scratch (H2A10) is the pre-diluted primary antibody used.
5. Cell Marque HiDef Detection™ HRP Polymer System (954D) provides the Amplifier and HRP Polymer solutions used.
6. Cell Marque DAB Substrate Kit (957D) is the chromogen used.
7. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

REFERENCES:

1. Biocare Medical Cat Scratch Antibody datasheet.
2. Cell Marque HiDef Detection™ Polymer System datasheet.
3. Cell Marque DAB Substrate Kit datasheet.
4. Modifications developed by Newcomer Supply Laboratory.

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