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Part 4275
Revised December 2015

Helicobacter sp., Artificial Control Slides – Technical Memo

CONTROL SLIDES:	**Part 4275A**	**Part 4275B**
	10 Slide/Set	98 Slide/Set

***Helicobacter 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 *Helicobacter 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. *Helicobacter pylori* was used to produce these control slides, and was purchased from the American Type Culture Collection (ATCC® 43504™). 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 Differential Stain, Monochromatic Method:	**Individual Stain Solution**
Thiazine Stain	Part 10522

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

APPLICATION:

Newcomer Supply *Helicobacter sp*., Artificial Control Slides are for the positive histochemical staining of *Helicobacter sp*., a spiral shaped bacterium strongly associated with inflammation of the stomach and implicated in the development of gastric malignancy, peptic ulcers, and chronic gastritis.

METHOD:

Fixation: Formalin 10%, Phosphate Buffered (Part 1090)
Technique: Paraffin sections cut at 4 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.
2. Place slides in Thiazine Stain for 1-4 minutes depending upon staining intensity preference.
    a. *See Procedure Note #1.*
3. Rinse slide quickly in distilled water; long enough to remove excess stain.
4. Allow slides to air-dry in a vertical position.
5. Dip dried slides in xylene and coverslip with compatible mounting medium.
    a. *See Procedure Note #2.*

RESULTS:

Helicobacter sp.	Dark blue
Collagen and muscle	Blue
Nuclei	Blue
Cytoplasm	Varying shades of light blue
Negative lung	Negative for *Helicobacter sp.*

PROCEDURE NOTES:

1. The timings provided in this procedures are suggested ranges. Optimal staining times will depend upon staining intensity preference.
2. The elimination of dehydration steps is necessary to retain the dark stain of the organism.
3. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and coverslipping steps.

REFERENCES:

1. Potvin, Carol. "A Modified Diff-Quik Stain for *Helicobacter pylori* in Gastrointestinal Biopsies." *Laboratory Medicine* 25.6 (1994): 389-391.
2. Skipper, Ray, and Don DeStephano. "A Rapid Stain for *Campylobacter pylori* in Gastrointestinal Tissue Sections Using Diff-Quik." *The Journal of Histotechnology* 12.4 (1989): 303-304.
3. Modifications developed by Newcomer Supply Laboratory.