

Giemsa Control Slides – Technical Memo

CONTROL SLIDES:	Part 4240A	Part 4240B
	10 Slide/Set	98 Slide/Set

Giemsa Control Slides contain a section of positive staining spleen.

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 positive control slides were produced from human surgical or autopsy 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 May-Grunwald Giemsa Stain:	Individual Stain Solution
Jenner Stock Stain	Part 1210
Giemsa Stock Stain, Wolbach	Part 1121
Alcohol, Methanol Anhydrous, ACS	Part 12236
Acetic Acid 1%, Aqueous	Part 10012

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

APPLICATION:

Newcomer Supply Giemsa Control Slides are for the positive histochemical and differential staining of hematopoietic tissue.

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:

- 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.
 - See Procedure Notes #1 and #2.
- Rinse in two changes of Alcohol, Methanol Anhydrous, ACS; 3 minutes each.
- Prepare fresh Working Jenner Stain Solution just prior to use; combine and mix well.
 - Distilled Water 20 ml
 - Jenner Stock Stain 20 ml
- Place slides in fresh Working Jenner Stain Solution for 6 minutes.
- Prepare fresh Working Giemsa Stain Solution just prior to use; combine and mix well.
 - Distilled Water 47 ml
 - Giemsa Stock Stain, Wolbach 3 ml
- Place slides directly into fresh Working Giemsa Stain Solution for 45 minutes.
- Rinse quickly in distilled water.
- Differentiate each slide individually in Acetic Acid 1%, Aqueous; 6-10 dips.
 - Check microscopically for well differentiated nuclei.
- Rinse in distilled water.
- 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:

Nuclei	Blue/violet
Cytoplasm	Pink/rose to lighter blue shades

PROCEDURE NOTES:

- Drain staining rack/slides after each step to prevent solution carry over.
- Do not allow sections to dry out at any point during staining procedure.
- The color range of the stained cells may vary depending upon fixation and degree of differentiation.
- If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization and clearing steps.

REFERENCES:

- Carson, Freida. *Histotechnology: A Self-Instructional Text*. 2nd ed. Chicago: ASCP Press, 1997. 106-107.
- Luna, Lee G. *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*. 3rd ed. New York: Blakiston Division, McGraw-Hill, 1968. 121-122.
- Shapiro, Stanley H., and Hilda Laufer. "Observations on Fixation and Staining of Bone Marrow Biopsies." *The Journal of Histotechnology* 11.3 (1988): 145-47.
- Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 157.
- Modifications developed by Newcomer Supply Laboratory.

