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Part 4240
Revised January 2020

Giemsa Control Slides – Technical Memo

CONTROL SLIDES:

Part 4240A	**Part 4240B**
10 Slide/Set	98 Slide/Set

PRODUCT SPECIFICATIONS:
Tissue: Positive staining spleen.
Fixation: Formalin 10%, Phosphate Buffered (Part 1090).
Section/Glass: Paraffin sections cut at 4 microns on Superfrost™ Plus slides.
Quality Control Stain: May-Grunwald Giemsa 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 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

APPLICATION:

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

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. Rinse in two changes of Alcohol, Methanol Anhydrous, ACS (12236); 3 minutes each.
4. Prepare fresh Working Jenner Stain Solution just prior to use; combine and mix well.
    a. *Distilled Water* *20 ml*
    b. *Jenner Stock Stain* *20 ml*
5. Place slides in fresh Working Jenner Stain Solution for 6 minutes.
6. Prepare fresh Working Giemsa Stain Solution just prior to use; combine and mix well.
    a. *Distilled Water* *47 ml*
    b. *Giemsa Stock Stain, Wolbach* *3 ml*
7. Place slides directly into fresh Working Giemsa Stain Solution for 45 minutes.
8. Rinse quickly in distilled water.
9. Differentiate each slide individually in Acetic Acid 1%, Aqueous (10012); 6-10 dips.
    a. *Check microscopically for well differentiated nuclei.*
10. Rinse in distilled water.
11. 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:

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

REFERENCES:

1. 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.
2. Shapiro, Stanley H., and Hilda Laufer. "Observations on Fixation and Staining of Bone Marrow Biopsies." *The Journal of Histotechnology* 11.3 (1988): 145-47.
3. Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 157.
4. Modifications developed by Newcomer Supply Laboratory.