

# Differential Quik III Stain Kit

Catalog Number: 26419

# DESCRIPTION

Differential Quik III is a stain set for manual staining of blood smears, microorganisms and spermatozoa. The staining characteristics are also similar to the traditional Wright's Giemsa stains. Differential Quik III offers the flexibility of a three-to-five dip staining sequence in both the stain and counter-stain solutions.

Differential Quik III Stain Kit provides a rapid hematology staining system utilizing three prepared solutions. The essential eosin and thiazine staining solutions are manufactured using certified dyes and quality controlled tested on human blood smears. The convenient 15 second slide dip procedure results in stained smears comparable to Wright-Giemsa protocols.

Additionally, Differential Quik III has been formulated to provide superior results when used as an Andrology stain. Users will be pleased with the differentiation of immature sperm and white blood cells and the excellent resolution achieved in the staining of the head, neck and tail piece.

Furthermore, the stain is very useful to pathologists for immediate interpretation of fine needle aspiration biopsies and detecting *H. pylori* microorganisms has never been easier. Staining times may be altered to vary the eosinophilic or basophilic staining as desired.

## **KIT CONTENTS**

- 1. Differential Quik III Fixative
- 2. Differential Quik III Stain, Solution I
- 3. Differential Quik III Stain, Solution II

| Specimin                      | Nucleus     | Granules    | Cytoplasm   |  |
|-------------------------------|-------------|-------------|-------------|--|
| Erythrocytes                  | N/A         | N/A         | Pink        |  |
| Leukocytes Granular           | N/A         | N/A         | N/A         |  |
| Polymorphonuclear Neutrophils | Purple      | Red-Lilac   | Light Pink  |  |
| Eosinophils                   | Dark Blue   | Red/Orange  | Medium Blue |  |
| Basophils                     | Dark Blue   | Dark Purple | Medium Blue |  |
| Leucocytes Nongranular        | N/A         | N/A         | N/A         |  |
| Monocytes                     | Violet      | N/A         | Light Blue  |  |
| Lymphocytes                   | Violet      | N/A         | Medium Blue |  |
| Platelets                     | N/A         | Purple      | Lilac       |  |
| Microorganisms                | Blue/Violet | N/A         | N/A         |  |
| Spermatozoa                   | Dark Blue   | N/A         | N/A         |  |

## EXPECTED RESULTS

| Structure                      | Color   |  |  |
|--------------------------------|---|--|--|
| Erythrocytes                   | Pink/Yellowish Red                              |  |  |
| Platelets                      | Dark Blue/Violet/Purple Granules                |  |  |
| Neutrophils                    | Blue Nucleus, Pink Cytoplasm, Purple Granules   |  |  |
| Eosinophils                    | Blue Nucleus, Blue Cytoplasm, Red Granules      |  |  |
| Basophils                      | Dark Blue Purple Nucleus, Purple Granules       |  |  |
| Monocytes                      | Purple Nucleus, Light Blue Cytoplasm            |  |  |
| Bacteria/Microorganisms        | Deep Blue, Vary In Shape                        |  |  |
| Collagen, Cytoplasm and Muscle | Various shades of pink, blue, orange and vellow |  |  |

## PROCEDURE

(IMPORTANT: Please read safety notes under STORAGE AND HANDLING before proceeding)

- 1. Transfer each Solution into coplin jars or staining dishes and keep covered when not in use.
- 2. Prepare specimen slides. (Allow blood smears to air dry)
- 3. Dip slides for five seconds in Fixative. Blot slide on towel to remove excess stain before transferring to next reagent.
- 4. Dip slides in Solution I for 5 seconds. Blot slide on towel to remove excess stain before transferring to next reagent.
- 5. Dip slides in Solution II for 5 seconds. Blot slide on towel to remove excess stain before transferring to next reagent.
- 6. Rinse slides with deionized water (Skip to step 9 for tissue specimen).
- 7. Allow to air dry.
- 8. Examine under light microscope at 100X using immersion oil.
- 9. Dehydrate through 95% ethanol, (10 dips) 100% ethanol (10 dips), then Xylene (10 dips).
- 10. Mount with synthetic resin and coverslip. View on light microscope.

## STORAGE AND HANDLING

Store at controlled room temperature (15-30°C). Keep bottles tightly closed when not in use.

#### REFERENCES

1. Morris, D. O., Davis, M. F., Palmeiro, B. S., O'Shea, K. & Rankin, S. C. *Molecular and epidemiological characterization of canine Pseudomonas otitis using a prospective case-control study design.* Veterinary Dermatology 28, 118-e25 (2017). doi:10.1111/vde.12347

2. Armbruster, C., Pokieser, L. & Hassl, A. *Diagnosis of Pneumocystis carinii pneumonia by bronchoalveolar lavage in AIDS patients. Comparison of Diff-Quik, fungifluor stain, direct immunofluorescence test and polymerase chain reaction.* Acta cytologica 39, 1089–93 (1995).

3. Kellogg, J. A., Seiple, J. W., Klinedinst, J. L. & Stroll, E. *Diff-Quik stain as a simplified alternative to Papanicolaou stain for determination of quality of endocervical specimens submitted for PCR detection of Chlamydia trachomatis.* Journal of Clinical Microbiology 34, 2590–2592 (1996).

#### ORDERING INFORMATION

| Cat. #   | Description                     | Size   |
|----------|---------------------------------|--------|
| 26419-8  | Differential Quik III Stain Kit | 8 oz.  |
| 26419-16 | Differential Quik III Stain Kit | 16 oz. |
| 26419-1  | Differential Quik III Stain Kit | 1 gal  |

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