

**SIEMENS**  
**Hematek<sup>®</sup>**

## **Hematek<sup>®</sup> Stain Pak – Wright-Giemsa Stain**

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05947039 Rev. E, 2017-09



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# Hematek<sup>®</sup> Stain Pak

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# Hematek® Stain Pak - Wright-Giemsa Stain

## Intended Use

The Hematek® Stain Pak is for *in vitro* diagnostic use in the differential staining of blood, bone marrow and body fluid smears on the Hematek Slide Stainer. Stained smears are evaluated for the identification and quantitation of cells in whole blood and other specimens to aid clinicians in the assessment of various clinical conditions.

## Summary and Explanation

The Hematek Stain Pak is the reagent system for Hematek Slide Stainers. The reagent system consists of a modified polychrome methylene blue-eosin stain (similar to Wright's or Giemsa) and is based on the original stain proposed by Romanowsky.<sup>1</sup>

The Hematek Slide Stainer system has been evaluated and reported in the literature cited.<sup>2-3</sup>

## Principle of the Procedure

When a thin blood film is processed with this system and examined microscopically, the nucleus and the cytoplasm of neutrophils, lymphocytes, monocytes, eosinophils, and basophils show a characteristic blue or red coloration. Cells are then manually differentiated and quantified.

## Reagents

Reagents are provided in the Hematek Stain Pak and are not available separately.

Each Hematek Stain Pak contains sufficient fluids to stain approximately 750 to 1000 glass slides depending on the user-defined settings for rotating speed of the pumps, which will determine stain usage.

Hematek Stain Pak – Wright-Giemsa Stain						
REF	SMN	Name	Product Number	Symbols	Content	Amount
01178588	10314755	Wright-Giemsa Stain	4405	① STN	Stain	1 x 225 mL
		Wright-Giemsa Buffer		② BUF	Buffer	1 x 540 mL
		Wright-Giemsa Rinse		③ RNS	Rinse	1 x 900 mL

## **Components and Concentrations**

### **Hematek Stain**

- Methanol, 98%
- Polychrome methylene blue-eosin stain

### **Hematek Buffer**

- Phosphate buffers
- Surfactant
- Preservative

### **Hematek Rinse**

- Methanol, 8%
- Phosphate buffers
- Surfactant
- Preservative

## Warnings and Precautions

For *in vitro* diagnostic use.

	<p>H317</p> <p>P280, P272, P302+P352, P333 + P313, P501</p>	<p><b>WARNING</b></p> <p>May cause an allergic skin reaction. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Dispose of contents and container in accordance with all local, regional and national regulations.</p> <p><b>Contains:</b> 5-chloro-2methyl-4-isothiazolin-3-one with 2-methyl-2H-isothiazol-3-one (3:1) (Rinse Solution)</p>
  	<p>H225, H301 + H311 + H331, H370, H412</p> <p>P280, P210, P273, P260, P304 + P340, P301 + P310, P303 + P361 + P353, P235, P501</p>	<p><b>DANGER!</b></p> <p>Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs. Harmful to aquatic life with long lasting effects.</p> <p>Wear protective gloves/protective clothing/eye protection/face protection. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid release to the environment. Do not breathe dust/fume/gas/mist/vapours/spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Keep cool. Dispose of contents and container in accordance with all local, regional, and national regulations.</p> <p><b>Contains:</b> Methanol, polyethylene glycol octylphenyl ether. (Stain Solution)</p>

## Reagent Preparation and Use

Reagents are ready to use and require no preparation.

## Storage and Stability

Hematek Stain Pak reagents are stable until the expiration date printed on the product label when stored at room temperature between 15°C and 30°C.

Do not refrigerate.

Do not open Hematek Stain Pak until inserted into the Hematek Slide Stainer.

## Procedure

The Hematek Stain Pak must be used in the Hematek Slide Stainer according to instrument instructions. Refer to the Hematek Instruction Manual Maintenance/Instrument Setup section to install the Hematek Stain Pak.

## Installation instructions

Refer to the Hematek Instruction Manual Installation section for instructions on instrument setup.

## Operating instructions

Refer to the Hematek Instruction Manual section on Operating the system.

## Materials Required but not provided

The materials required but not provided to perform staining are standard glass slides and a Hematek Slide Stainer.

## Limitations

Hematek Stain Paks produce high quality stained blood films. However, there may be personal preferences in shades and intensities of staining not satisfied by the system. To adjust staining intensity to suit personal preferences, refer to the Hematek Instruction Manual, pump volume adjustment section.

## Results

The Hematek Stain Pak when used with the Hematek Slide Stainer will produce a consistent stain quality to facilitate accurate and reliable interpretation.

## Technical Assistance

For customer support, please contact your local technical support provider or distributor.  
[siemens.com/healthcare](http://siemens.com/healthcare)

## Bibliography

1. Romanowsky DL. On the Question of Parasitology and Therapy of Malaria. *St. Petersburg Medical Weekly* **16**:297-302 (1891)
2. White WL, Erickson MM, Stevens SC. Practical Automation for the Clinical Laboratory. St. Louis, MO, CV Mosby Co., pp 476-487 (1972)
3. Moss ED. Automated Slide Staining in Haematology. *Can. J. Med. Tech.* **30 (5)**: 169 (1968)

## Definition of Symbols

The following symbols may appear on the product labeling:

Symbol	Definition	Symbol	Definition
	<i>In vitro</i> diagnostic medical device		Catalog number
	Legal manufacturer		Authorized Representative in the European Community
	CE Mark		CE Mark with identification number of notified body
	Consult instructions for use		Biological Risk
	Keep away from sunlight and heat		Temperature limitation
	Lower limit of temperature		Upper limit of temperature
	Do not freeze ( $> 0^{\circ}\text{C}$ )		Up
	Use by		Contains sufficient for (n) tests
	Recycle		Printed with soy ink
Rev.	Revision	YYYY-MM-DD	Date format (year-month-day)
	Batch code		