

 Diff-Quick - RU

 Diff-Quick - Polski

 Diff-Quick - Français

# HAEMA – **LT-SYS**<sup>®</sup> Quick-Stain (Diff-Quick)

# Labor + Technik

EBERHARD LEHMANN GmbH

Diagnostics and Labware  
Consulting · Training · Customer Support

- Easy handling – **brilliant staining in only 1 minute**
- Three-Step-Procedure Stain kit containing **3 ready-to-use solutions**
- Staining results equivalent to **Pappenheim method**
- Provides **consistent, reproducible staining quality**
- Clear, differential results
- Rapid staining for haematology, cytology and histology
- **High stability, excellent yield and colour intensity**
- For human- and veterinary labs



With Haema-Quick-Stain numerous specimen slides can be processed simultaneously, thus making it suitable for use in industrial Haematology laboratories, private practices and for emergency diagnosis.

## PROCEDURE

Prepare smear slide with blood or other specimen according to standard procedure:

1. Dip slide into Fixing Solution 5 times for 1 second, allowing excess reagent to drain.
2. Dip slide into Colour Reagent I, red 3 - 5 times for 1 second, allowing excess reagent to drain.
3. Dip slide into Colour Reagent II, blue 3 - 5 times for 1 second, allowing excess reagent to drain.
4. Rinse slide with distilled water and allow to dry.

## PRODUCT DATA

LT 005	Haema Quick Stain Set with Fixing Solution, Colour reagent I, red and II, blue, each 100 ml
LT 001	Haema Quick Stain Set with Fixing Solution, Colour reagent I, red and II, blue, each 500 ml
LT 008/S	Haema Quick Stain, 1000 ml Fixing Solution
LT 002	Haema Quick Stain, 2,5 l Fixing Solution
LT 003	Haema-Quick Stain, 2,5 l Colour Reagent I, red
LT 004	Haema-Quick Stain, 2,5 l Colour Reagent II, blue
1210	Dye-bath Set includes: 3 Glass Troughs with cover, 1 Stainless Steel Rack, 1 Glass Trough approx. 27,5 x 15 x 6 cm
2407/1	Microscope Slides, 76 x 26 mm each, frosted ends, pack of 50 pcs.
LT-FLIO	Immersion Oil, 100 ml

 **made  
in  
Germany**

Corresponding to the In-vitro-Diagnostic guideline 98/79/EC all our products are CE registered. Our Quality Management System is certified by the TÜV according to EN ISO 9001:2008 and EN ISO 13485:2012/AC:2012.

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**MORE THAN 40 YEARS: HIGH QUALITY CLINICAL REAGENTS AT LOW PRICES!**

# HAEMA QUICK STAIN

## LABOR + TECHNIK LT-SYS®

LT 001	Haema Quick Stain Set Fixing solution, colour reagent I, red and II, blue, each 500 ml
LT 002	Haema Quick Stain 2, 5 l Fixing solution
LT 003	Haema Quick Stain 2, 5 l Colour reagent I, red
LT 004	Haema Quick Stain 2, 5 l Colour reagent II, blue
LT 005	Haema Quick Stain Set Fixing solution, Colour reagent I, red and II, blue, each 100 ml

## INTENDED USE

Stain set for rapid, differential staining of hematological smears and different clinical specimens -in vitro diagnosticum-.

## PRINCIPLE

The Haema Quick Stain Set constitutes a differential staining system for blood cells that combines the polychromy and quality of classical systems with a very quick execution (3 step process into a 15 second detaining operation).

The typical colour of cell nuclei, namely purple, is due to molecular interaction between eosin Y and an azure B-DNA complex. Both dyes build up the complex later. The intensity of the staining depends on the azure B content and on the ratio azure B/eosin Y. The staining result can be influenced by several factors such as the pH of the solutions and buffer solution, buffer substances, fixation, staining time.

## PREPARATION AND STABILITY

All Solutions are ready-to-use.

When stored at +15 °C - +25 °C, the reagent will remain stable up to the expiration date stated on the label.

The bottles must be kept tightly closed at all times.

Cuvettes that contain the stains shall always be stored capped, specially the fixing solution, in order to avoid undesirable evaporations that could promote deviations from the usual staining colours.

Add new dye solutions to the cuvettes to keep a daily appropriate (constant) level to compensate for drain losses.

From time to time renovate the whole contents of the cuvettes.

## SPECIMEN

Capillary blood or venous blood with EDTA.

Capillary blood should be used as soon as possible.

Stability in venous EDTA blood: at +15°C to +25°C: 24 hours.

Longer storage (+2°C - +8°C) requires cautious but completely mixing by shaking probes.

Bone marrow gained by sternal punctation is also usable for staining as other clinical specimens like cytological textures and lavages.

## ADDITIONAL REQUIRED MATERIAL

1210	Dye-bath set, includes: 3 Staining cuvettes 1 Tray of stainless steel 1 Glass trough
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Distilled water

Microscope slides

Cover slips

Immersion oil

Useable microscope with oil immersion lens

## PREPARATION OF PROBES

All smears should be prepared by typical techniques and dried by air.

## PROCEDURE OF STAINING

1. Dip slide for 5 sec. (5 x one sec.) in the fixing solution and allow excess to drain.
2. Dip slide for 5 sec. (5 x one sec.) in the colour reagent I (red) and allow excess to drain.
3. Dip slide for 5 sec. (5 x one sec.) in the colour reagent II (blue) and allow excess to drain.
4. Finally, rinse the microscope slide by distilled water and let dry.

If more intense overall stain is desired, increase the number of dips in colour reagent I and II. If a paler stain is desired, decrease dips in colour reagent I and II, but never go below 3 dips of one full second each. To increase eosinophilic staining, increase the number of dips in colour reagent I. To increase basophilic staining, increase the number of dips in colour reagent II.

## RESULTS

Erythrocytes	pink to yellowish red
Thrombocytes	Violet to purple granules
Leucocytes (polynucleous neutrophiles)	Nuclei dark-blue, cytoplasm pale pink, granules reddish to violet
Eosinophilic granulocytes	Nuclei blue, cytoplasm blue, granules red to red-orange
Basophilic granulocytes	Nuclei purple to dark-blue, granules dark-blue to black.
Monocytes	Nuclei violet, cytoplasm blue-grey to smoke-coloured.
Lymphocytes	Nuclei blue-violet, cytoplasm sky blue.
Bacteria's	blue
Area between cells	clear

## PRECAUTION INSTRUCTIONS

### For professional use only.

In order to avoid errors, the staining process must be carried out by qualified personnel.

National guidelines for work safety and quality assurance must be followed.

Microscopes equipped according to the standard must be used. Effective measures must be taken to protect against infection in line with laboratory guidelines.

**PROCEDURAL LIMITATIONS**

Good technique in preparing the blood smears should be used at all time. The unique division of stains in the Haema Quick Stain gives the user the advantage of varying dips in colour reagent I and II to produce different degrees of shading and intensity. However, one must never use less than 3 dips of one full second. The Haema Quick Stain is an aqueous stain and the water soluble portions of cell material may take the stain differently than the classical alcohol based Pappenheim stain. This phenomenon is most noticeable when observing basophiles. The granulocytes will appear "washed out" or partially dissolved. If basophiles are suspected the specimen should be stained using Pappenheim method (Giemsa, May-Grünwald).

**SAFETY AND PRECAUTION WARNINGS**

1. Fixing solution is a methanolic solution, is flammable and toxic in case of ingestion or inhalation.
2. Colour reagent I contains  $\text{NaN}_3$  to conserve.
3. Safety data sheets are available by request.
4. Obey special safety requirements for using laboratory reagents.
5. Waste products must be handled as per local's regulations.

**REAGENTS**

**Fixing Solution**

Methanol

Methylene blue

**Colour reagent I**

Phosphate buffer, pH 6,8

Eosin

Detergents

**Colour reagent II**

Phosphate buffer, pH 6,8

Azure

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