

RAL DIFF-QUIK™ EZ KIT (3x100ml) REF : 720550-0000

RAL DIFF-QUIK™ KIT (3x0,5L) REF : 720555-0000

FAST STAINING KIT

Principle:

RAL Diff-Quik kit is a fast-acting variation of Romanowsky staining. In an aqueous buffered medium, this kit enables:

- A differential staining of blood smears (differential blood cell counting, morphological study of leukocytes, study of parasites) and medullary smears (myelograms)
- The detection of tissular and blood parasites in medical and in veterinary mycology
- The cytological and structural study of fixed and paraffin embedded tissue sections as well as fluids and punctions
- The cytological study of urines, spinal and other fluids

The analysis of smears is identical to the one carried out with standard Romanowsky staining.

Kit Description: (3 x 100 ml or 3 x 500 ml)

Bottle ① : RAL Diff-Quik™ Fixative solution	100 ml or 500 ml
Bottle ② : RAL Diff-Quik™ Solution I	100 ml or 500 ml
Bottle ③ : RAL Diff-Quik™ Solution II	100 ml or 500 ml

Number of tests possible : 100 to 200 slides for 3 x 100 ml
800 to 1000 slides for 3 x 500 ml

Available refills :

RAL Diff-Quik™ Fixative solution (1x 2,5L)	REF : 720560-2500
RAL Diff-Quik™ Solution I (1x 2,5L)	REF : 720570-2500
RAL Diff-Quik™ Solution II (1x 2,5L)	REF : 720580-2500

Use:

For professional use only. **IVD**
For in-vitro diagnostic use.

The collection and processing of chemical and biological waste must be conducted by specialized and registered companies.

Storage Temperature: 15-25°C away from light.

Shelf-Life after Opening: 2 months (see notes)

Specimen preparation:

Specimen must be treated in accordance with procedures available in the laboratory and promulgated by national authorities.

Recommendations and/or notes of use:

The 3 bottles must be stored away from light. (Bottle ① contains Methanol which is very hygroscopic, and thus it must therefore be regularly refilled, namely in countries having high humidity). The oxidation level of RAL Diff-Quik™ Solution II is standardised during manufacture. This level varies over time and in transferring small quantities of RAL Diff-Quik™ Solution I from bottle to bottle. It is essential to drain off excess RAL Diff-Quik™ Solution I (bottle ②) before dipping the slide into RAL Diff-Quik™ Solution II (bottle ③). The colour of RAL Diff-Quik™ Solution I (bottle ②) may appear more or less dark, but the staining results are not affected either way. RAL Diff-Quik™ Solution II (bottle ③) remains stable for 2 months after opening.

Bibliography:

DATRY A., LECSO G., RICHARD-LENOBLE D. et KOMBILA M., *Coloration rapide des plasmodies et des microfilaies par les colorants solubles dans l'eau*, Med. Trop., vol 42, n°6, nov-déc 1982, p.673-675.

JASWANT SINGH, BHATTACHARJI L. M., Rapid staining of malarial parasites by a water soluble stain, The Ind. Med. Gaz., n°3, mars 1944, p. 102-104.

BOURÉE P., *Aide mémoire de parasitologie et de pathologie tropicale*, Médecine-Sciences, Flammarion, 2 ème éd., 1994, p. 294-295.

PRAT J.J., BROULAND J-Ph., MIKOL J., *Une alternative à la coloration de Giemsa sur coupe histologique* (Service Anatomie et Cytologie Pathologiques - Hôpital Lariboisière), Assises d'Anatomie Pathologiques, 23-24 mars 1955, p. 44.

BROULAND J.P., PRAT J.J., CASTAGNET P., *Méthode rapide de coloration pour la mise en évidence de Helicobacter pylori* (Service Anatomie et Cytologie Pathologiques - Hôpital Lariboisière), Assises d'Anatomie Pathologique, 23-24 mars 1995, p.211.



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FAST STAINING KIT

Staining procedures:

Haematology: Blood Smears

Veterinary Parasitology : Piroplasma, M. pachydermatis

Length of one Test: 15 seconds

- Dip the slide 5 x 1 second in solution RAL Diff-Quik™ Fixative solution (bottle ①). Drain surplus solution onto filter paper
- Dip the slide 5 x 1 second in RAL Diff-Quik™ Solution I (bottle ②). Drain surplus solution onto filter paper
- Dip the slide 5 x 1 second in RAL Diff-Quik™ Solution II (bottle ③).

Rinse the slide with distilled water.

Cytology: Spermocytograms

Length of one Test: 1 minute and 20 seconds

- Dip the slide 1 minute in solution RAL Diff-Quik™ Fixative solution (bottle ①). Drain surplus solution onto filter paper.
- Dip the slide 25 seconds in RAL Diff-Quik™ Solution I (bottle ②). Drain the excess solution onto filter paper.
- Dip the slide 25 seconds in RAL Diff-Quik™ Solution II (bottle ③).

Rinse the slide with distilled water.

Haematology: Bone marrow

Length of one Test: 3 minutes

- Dip the slide 1 minute in solution RAL Diff-Quik™ Fixative solution (bottle ①). Drain surplus solution onto filter paper.
- Dip the slide 1 minute in Diff-Quik™ Solution I (bottle ②). Drain surplus solution onto filter paper.
- Dip the slide 1 minute in RAL Diff-Quik™ Solution II (bottle ③). Drain surplus solution onto filter paper.
- Rinse the slide with distilled water.

Cyto-bacteriology: cytology of biological fluids, urines, cytopunctures and CSF

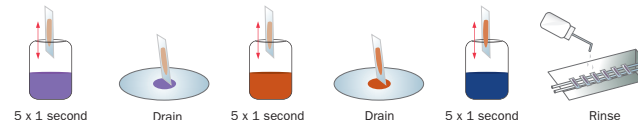
Length of one Test: 15 seconds (1minute 4 seconds for CSF)

- Dip the slide 5 seconds (1 minute for CSF) in solution RAL Diff-Quik™ Fixative solution (bottle ①). Drain surplus solution onto filter paper.
- Dip the slide 5 seconds (2x1 second for CSF) in Diff-Quik™ Solution I (bottle ②). Drain surplus solution onto filter paper.
- Dip the slide 5 seconds (2x1 second for CSF) in RAL Diff-Quik™ Solution II (bottle ③). Rinse the slide with distilled water.

Other applications available:

- Staining of *Plasmodium* (thin and thick smear for Malaria detection), Protocol n°26
- Staining of Tissular Protozoa. (*Cryptosporidium pneumocystis carinii*), Protocol n°26
- Staining of *Helicobacter Pylori* on histological sections, Protocol n°97
- Staining of fixed and paraffined tissues sections, punctions, Protocol n°42bis
- Staining of *Trichomonas*, microfilaria, and veterinary parasitology of piroplasma, *M. Pachydermatis*, Protocol n°26

Blood smear example:



Results:

Nuclei:	Chromatin: ± dense purple
Leukocytes:	Cytoplasm without RNA: light pinkish Eosinophilic Granulations: orange-brown Basophilic Granulations: dark purple blue Neutrophilic Granulations: ± intense purple
Lymphocytes:	Cytoplasm with RNA: pure blue Cytoplasm without RNA: light blue Azurophilic Granulations: red
Monocytes:	Cytoplasm: grey-blue
Erythrocytes:	light red
Platelets:	Chromomere: purple-red Hyalomere: bluish
Blood parasites:	Nuclei: red (plasmodium) Cytoplasm: blue



RAL DIFF-QUIK™ FIXATIVE SOLUTION -720560-0100
-0500
-2500



CONT | CH₃OH

DANGER. H225 Highly flammable liquid and vapour. H311 Toxic in contact with skin. H301 Toxic if swallowed. H331 Toxic if inhaled. H370 Causes damage to organs. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P281 Use personal protective equipment as required. P304+P340 IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

RAL DIFF-QUIK™ SOLUTION I - 720570-0100
-0500
-2500



CONT | 5-Chloro-2-methyl-2H-isothiazol-3-one/
2-methyl-2H-isothiazol-3-one

WARNING. H317 May cause an allergic skin reaction. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

RAL DIFF-QUIK™ SOLUTION II - 720580-0100
-0500
-2500

