DATA SHEET

REASTAIN QUICK-DIFF KIT
STAINING SOLUTIONS
Cat.no.102164

INSTRUCTIONS FOR USE

REASTAIN Quick-Diff is an optimised colour and fixative composition for the differential staining of cellular elements in peripheral blood smears. The fast 3-minute staining procedure and the ready-to-use solutions of the REASTAIN Quick-Diff KIT make this method ideal for use in emergency departments. The kit includes three 500 ml vials; REASTAIN Quick-Diff BLUE, REASTAIN Quick-Diff RED and REASTAIN Quick-Diff FIX. The result is in differential staining of the white cells upon their cytochemical features.

Reagents needed for the differential staining Product	Size	Ordering code
Reastain Quick-Diff Kit	3 x 500 ml	102164
Reastain Quick-Diff Fix	500 ml	172033
Reastain Quick-Diff Fix	3 l	102033
Reastain Quick-Diff Red	3 l	102034
Reastain Quick-Diff Blue	3 l	102035
Phosphate buffer	100 ml	140105
67,0 mmol/l pH 6,8	500 ml	170105
	10 l	110105

Reference intervals

Microscopic differential count of blood white cells (adults):
Parameter %, fraction
Neutrophils 40-75
Eosinophils 1-6
Basophils <1
Monocytes 1-10
Lymphocytes 20-45

Samples
EDTA blood or skin puncture sample.

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Preparation of the samples
See Dacie and Lewis (1995). Preparation of applicable and good quality specimens requires special attention.

Contents of the staining reagents:

Reastain Quick-Diff Blue
Azur II 0,09 %
Glycerol 5 %
Sodiumazide <0,1 %

Reastain Quick-Diff Fix
Methanol 100 %
Methyleneblue <0,01 %

Reastain Quick-Diff Red
Eosin Y 0,12 %
Sodiumazide <0,1 %

Phosphate buffer
Potassium dihydrogen phosphate/ disodium hydrogen phosphate x 2H2O 67,0 mmol/l

Storage
Reastain Quick-Diff Kit: protected from light at 2…25 °C. Unopened reagents may be used until the expiry date on the label.
Phosphate buffer: at 2…8 °C. Unopened reagents may be used until the expiry date on the label.
If the Red and Blue solutions have accidentally frozen or being kept under 0 °C, let them be in room temperature, and mix well before use.

Applicability
The reagents can be applied on manual staining procedures

STAINING INSTRUCTIONS

Preparation of buffered water
Dilution ratio 1:20, eg. 10 ml phosphate buffer + 190 ml deionised or distilled water.

Staining
1. Pour the solutions into the separated staining chambers.
2. Dip the air-dried slides into the REASTAIN Quick-Diff FIX solution (1sec) 5 - 10 times.
3. Dip the slides into the REASTAIN Quick-Diff RED solution (1sec) 3 – 15 times.
4. Dip the slides into the REASTAIN Quick-Diff BLUE solution (1sec) 3 - 15 times.
5. Rinse the slides in the buffered water solution, and air-dry.
6. Mount the slides with a coverslip if longer storage is required.

The staining result can be modified by the dipping procedures. For example, dipping the slides into the REASTAIN Quick-Diff RED solution more frequently than into the REASTAIN Quick-Diff BLUE solution can increase staining intensity of the eosinophilic

cells. The user should establish the most appropriate procedure for the different purposes by altering the dipping procedure.
One possible dipping procedure established by us is as follows:
1. REASTAIN Quick-Diff FIX 10 times 1 second each
2. REASTAIN Quick-Diff RED 6 times 1 second each
3. REASTAIN Quick-Diff BLUE 10 times 1 second each

Attentions!
Use fresh and non-expired solutions. The staining solutions in staining chambers should be changed periodically to ensure optimal staining. Prevent REASTAIN Quick-Diff FIX from evaporation. Contains methanol.

Sources of errors
Irregular distribution of the blood smear on a glass slide may result in an erroneous cell counts. Alcohols used for wiping the skin may cause hemolysis and artifacts. Do not let the specimens dry at any stage of the staining procedure. Wash properly to avoid dye artifacts. Buffered water is strongly recommended for washing. Staining result is dependent on pH. Alkaline pH increases blue and acidic pH pink or reddish tinge in the stained specimen.

Test performance
When stained correctly all relevant cell types are stained individually and are identifiable by the professional.

Warnings
Reastain Quick-Diff Fix: Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Keep container tightly closed. Keep away from sources of ignition - no smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel sick, seek medical advice immediately (show the label if possible).

Reference
Dacie J. and Lewis S. Practical haematology. Churchill Livingstone, London, 1995.

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