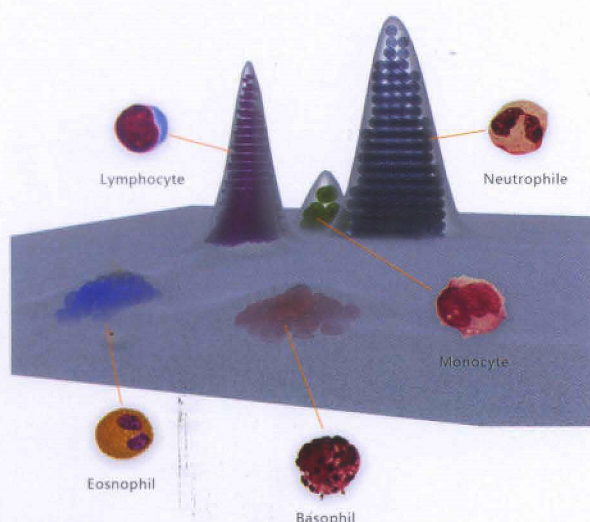# Hemaray 83
5-part Hematology Analyzer

- 28 Parameters,
  2 Histograms, 2 Scattergrams
- 60 samples/hour
- 3-D Topographic Maps for WBC
- Integral titanium incubation system
- 2 test modes & 2 sample modes
- Laser Scatter technology
- Constant Linear Sheath Flow
- Cyanide Free reagents

Rayto

TÜV CE

Hemaray 83
5-part Hematology Analyzer

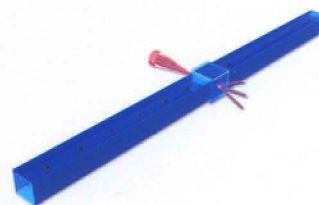
Lymphocyte

Neutrophile

Monocyte

Eosnophil

Basophil

3-D Topographic Maps for WBC

Cytomorphologically, is a useful way of 5-part differentiation of WBC according to the size, complexity and granularity of the cells. The multiple scatter light beams are used to detect the WBC, which named as the 3-D Topographic Map technology. The forward small angle laser beam, the forward large angle laser beam and the lateral laser beam stand for the different properties of the WBC.

Constant Linear Sheath Flow

A most important technology is to ensure the WBC passing the laser beam one by one, when the sheath flow passes the unique designed square counting chamber. As the diameter of the WBC will not be too different from the diameter of the transversal surface of the chamber, the WBC are fixed in the middle of the sheath flow passing the square chamber constantly with a high speed. This Constant Linear Sheath Flow ensures the accuracy of the WBC counting.

Integral titanium incubation system

An integrated titanium incubation system is adopted to keep the reagent and the sample in the same constant temperature, which facilitates the complete reaction. This is the key technology to ensure the accuracy of 5-part differentiation.

2 test modes

CBC+5Diff mode

CBC mode

2 sample modes

Whole blood sample mode

Pre-diluted blood sample mode

User-friendly software

Data management

- 100,000 results storage including histogram and scattergram
- Multi print format including self-defined format
- Mean, CV and SD values are caculated
- Statistics including Sample, QC and Calibration
- Sort by sample number, patient name, type, time frame etc.

Easy maintenance

- Self-check during start up and shut down
- Tubing automatic maintenance
- Adjustable sleeping mode

Multi-warning system

- Reagent inventory check
- Abnormal original data warning
- Multi warning flags

System setup

- Different levels of permission
- Different reference ranges determined by age and gender

LIS Interface

- LIS interface with HL7 protocol

Hemaray 83
5-part Hematology Analyzer

Technical Specifications

- ### Technology

  3-D Topographic Map

  Integral titanium incubation system

  Laser Scatter technology

  Flow Cytometry technology

  Cyanide Free reagents

- ### Parameters

  Regular parameters:

  WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD,

  RDW-CV, PLT, PDW, MPV, PCT, P-LCR, NEU#, NEU%,

  LYM#, LYM%, MON#, MON%, EOS#, EOS%, BAS#, BAS%

  Research parameters:

  ALY#, ALY%, IG#, IG%   2 histograms, 2 scattergrams

- ### Test speed:

  60 samples/hour

- ### Test mode:

  CBC+5DIFF, CBC

- ### Performance

Item	Linear range	Carry over	CV
WBC	$1.0\text{-}99.9\times10^{9}$/L	≤0.5%	≤2.0%
RBC	$0.3\text{-}7.0\times10^{12}$/L	≤0.5%	≤1.5%
HGB	20-240g/L	≤0.5%	≤1.5%
PLT	$20\text{-}999\times10^{9}$/L	≤1.0%	≤4.0%

- ### QC and calibration

  Multiple QC rules, including L-J, X-B etc.

  Auto and manual calibration function for

  both whole blood mode and pre-diluted blood mode

- ### Power Supply

  100V-240V, 50Hz/60Hz

- ### Operation environment

  Temperature: 15℃-30℃

  Humidity: 30%-85%

- ### Weight   53KG

- ### Dimension   46cm(L)×57cm(W)×61cm(H)

Rayto

DIATEK