

Hemaray 86

5-part Hematology Analyzer

Technical Specifications

• Technology

- 3-D Topographic Map
- Integral Titanium Incubation System
- Laser Scatter Technology
- Flow Cytometry Technology
- Cyanide Free Reagents
- Autoloader & Close Tube
- Random Direction Tube Barcode Scanning Technology(Optional)

• 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:

Autoloader Mode: 60 Samples/hour
Close Tube Mode: 60 Samples/hour

• Test Mode:

CBC+5DIFF, CBC

• Performance

Item	Linear range	Carry over	CV
WBC	1.0-99.9×10 ⁹ /L	≤0.5%	≤2.0%
RBC	0.3-7.0×10 ¹² /L	≤0.5%	≤1.5%
HGB	20-240g/L	≤0.5%	≤1.5%
PLT	20-999×10 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

• Sampling Mode:

Autoloader: 50 tubes, Auto mixing, Random Direction Tube Barcode Scanning Technology
Close Tube: STAT Priority, Support both whole blood and capillary blood samples

• Weight

75KG

• Dimension

61cm(L)×76cm(W)×61cm(H)

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- 28 Parameters
- 2 Histograms, 2 Scattergrams
- Auto-loader, 60 samples/hour
- Integral Titanium Incubation System
- 3-D Topographic Maps for WBC
- Laser Scatter Technology
- Constant Linear Sheath Flow
- Random Direction Tube Barcode Scanning Technology (Optional)



Rayto reserves the right to change specifications without prior notice.
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Rayto Life and Analytical Sciences Co.,Ltd.

2F,5th Building,Software Park,2 Gaoxinzhong 3rd Road,
Hi-tech Industrial Park,Nanshan,Shenzhen 518057,P.R.China
Tel:+86(755)86168996 Fax:+86(755)86168796
Email:info@rayto.com Http://www.rayto.com



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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 calculated
- 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

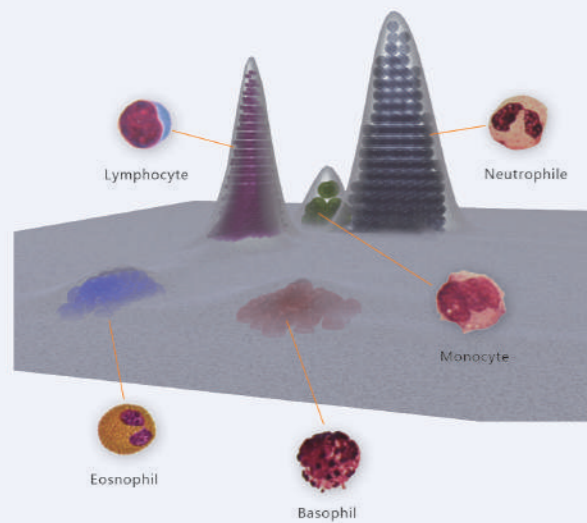
- Reagent inventory check
- Abnormal original data warning
- Multi warning flags

System Setup

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

LIS Interface

- LIS interface with HL7 protocol



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.

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.

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.

