

Performance you'd expect
from a **high-volume** analyzer.

COULTER® LH 500 Hematology Analyzer

General Chemistry
Immunodiagnosics
Molecular Diagnostics
Hematology
Centrifugation
Disease Management
Information Systems
Lab Automation
Hemostasis
Flow Cytometry
Primary Care



Increased Efficiencies Help You Manage Your Workload

- Reduce repeat testing and save time with expanded linearity for WBC and Platelet counts
- Improved flagging reduces review rates
- Standardize lab processes across all shifts with user-defined decision rules
- Save time with continuous automated sample loading for complete walkaway operation



Run STAT samples with minimal interruption to your routine workflow.

Integrated Solutions Expand Your Lab's Capabilities

- Simplify supply ordering with reagents interchangeable between all LH series models
- Eliminate additional technologist training with a common user interface
- Common LH series core technologies provide closest correlation of results between instruments
- LH series data management capabilities include full decision support
- Easy-to-use Windows*-based software
- Save valuable lab space with a compact design that complements existing instruments
- Run STAT samples with minimal interruption of routine workflow



User-defined decision rules help optimize and standardize lab processes across all shifts.

Performance You Can Count On

Choose Beckman Coulter products for our world-class performance and reliability, and because you can count on our industry-best service and customer support. We pledge to provide efficient technical assistance, swift response times and replacement parts when you need them.

Regardless of which Beckman Coulter systems you select, our dedication to customer service ensures they will continue to operate at peak efficiency for years to come.

Our robust tradition of innovation and achievement has helped us earn our position as the global leader in cellular analysis. And it's how we can offer you the most sensitive, cost-efficient and reliable hematology systems available. No one can match our success at delivering sophisticated and innovative technology-based solutions.

Contact your Beckman Coulter representative today to discover how our technological tools can improve the lives of your patients as well as the efficiency of your organization.

* Windows is a trademark of Microsoft Corporation.

High-Volume performance in a compact design



Continuous sample loading provides walkaway efficiency.

For your lab, mid-size is the right size. But you also need the kind of performance typically available only from high-volume hematology analyzers. Now you can have both.

The COULTER® LH 500 offers advanced three-dimensional VCS technology, which provides the highest level of sensitivity, specificity and efficiency in white cell differential analysis. The LH 500 helps increase productivity, enhances linearity, improves diff flagging and reduces false positive flagging -- features you'd expect from a high-volume analyzer. With the LH 500, you get all of this in a compact design that fits your needs and your limited lab space.



Whether you're a mid-volume lab looking for a reliable solution, or a high-volume lab looking for a companion to your COULTER® LH 700 series analyzers, the LH 500 delivers.

With advanced VCS technology, the LH 500 delivers the greatest sensitivity, specificity and efficiency.

COULTER® LH 500 Specifications

Method and Technologies

CBC Analysis & Hgb

- Coulter Principle: counting and sizing
- Triplicate counting
- Coincidence correction
- Pulse editing
- Sweep flow
- Extended platelet counting
- Hemoglobin method equal in accuracy to reference method
- LH Series Diluent and COULTER® LYSE S® III diff reagent system

5-Part Differential Analysis

- VCS Technology
- LH Series reagent system

Retic Analysis

- VCS™ Technology
- COULTER® ReticPrep™ reagent system (New Methylene Blue)

26 Parameters

WBC	RBC	PLT	RETIC #
NE#	HGB	MPV	RETIC %
NE%	HCT	PCT*	IRF
LY#	MCV	PDW*	MRV
LY%	MCH		
MO	MCHC		
MO%	RDW		
EO#			
EO%			
BA#			
BA%			

* For Research Use Only. Not for use in diagnostic procedures.

Sample Size

- 185 µL whole blood, closed vial sampling
- 125 µL whole blood, open vial sampling
- 50 µL whole blood, predilute mode

Barcode Symbology

Positive Barcode ID

- Codabar
- NW 7
- Code 39*
- Code 128
- Interleaved 2-of-5

LH 500 Workstation/Data Management

- Windows 2000 operating system
- Database capacity: 20,000 sets of results, graphics and listmode files
- User-defined flagging
- Archive and transmit patient and QC to host computer
- Decision rules criteria

Quality Control Management

- Unlimited control files with unlimited runs on each file
- Control and user-defined flagging
- Upload and download information from a diskette

Improved Linearity/Operating Ranges

Parameter	Linearity Ranges	Operating Ranges
WBC	0.0 – 200.00 x 10 ³ cells/µL	0.00 – 300.0 x 10 ³ cells/µL
RBC	0.0 – 7.00 x 10 ⁶ cells/µL	0.0 – 9.99 x 10 ⁶ cells/µL
HGB	0.0 – 25.0 g/dL	0.0 – 99.9 g/dL
PLT	0.0 – 2,000.0 x 10 ³ cells/µL	0.0 – 3500 x 10 ³ cells/µL

Parameter	Reportable Ranges	Operating Range
MCV	50.0 – 150.0 fL	0.0 – 999.9 fL
Diff%	0 – 100%	0 – 100%
Diff#	0.00 – 200.00 x 10 ³ cells/µL	0.00 – 300.00 x 10 ³ cells/µL
RET%	0.00 – 30%	0.00 – 100.0%
RET#	0.00 – 0.7900 x 10 ⁶ cells/µL	0.0000 – 999.9 x 10 ⁶ cells/µL

Precision

Parameter	@ Approximate Level	Limit
WBC	4.0 – 15.0 x 10 ³ cells/µL	≤2.5% CV
RBC	3.00 – 6.0 x 10 ⁶ cells/µL	≤2.0% CV
HGB	12.0 – 18 g/dL	≤1.5% CV
MCV	80 – 100 fL	≤2.0% CV
RDW	12 – 15%	≤2.5% CV
PLT	200 – 500 x 10 ³ cells/µL	≤5.0% CV
MPV	7 – 12 fL	≤3.0% CV
NE%	50 – 60%	2SD ≤3.0
LY%	25 – 35%	2SD ≤3.0
MO%	5 – 10%	2SD ≤2.0
EO%	2 – 5%	2SD ≤1.0
BA%	0.5 – 1.5%	2SD ≤1.0
RET %	<1.00%	1SD ≤0.23 or 23.0% CV
RET %	1.00 – 4.00%	1SD ≤0.23 or 17.0% CV
RET %	4.01 – 15.00%	1SD ≤0.68 or 15.0% CV

Accuracy

Parameter	Mean Difference	Mean Difference % using LH 750 Hematology Analyzer
WBC	0.00 – 100.0 ±0.2	3.5%
	100.1 – 200.0 N/A†	12.0%
RBC	±0.05	2.0%
HGB	±0.2	3.0%
MCV	N/A†	2.0%
PLT	±10	7.0%
MPV	N/A†	5.0%
Lymphocyte	±1.5	
Monocyte	±1.5	
Neutrophil	±2.0	
Eosinophil	±0.5	
Basophil	±0.5	
RET% Range	0.00 – 30.00% ±1.50	

†Both requirements must be met.

Dimensions/Weight

	Height	Width	Depth	Weight
<i>Analyzer</i>	84.84 cm (33.4 in)	61.5 cm (25.1 in)	69.85 cm (27.5 in)	94.5 kg (210 lb)
<i>Computers</i>	43.18 cm (17.0 in)	19.7 cm (7.75 in)	4.76 cm (1.875 in)	9.7 kg (21.5 lb)
<i>LCD Display</i>	41.9 cm (16.5 in)	40.4 cm (15.9 in)	19.6 cm (7.7 in)	7.34 kg (16.3 lb)

Temperature, Ambient Operating

18° – 29°C (65 – 85°F)

Humidity

0 – 95% non-condensing

Throughput

Up to 75 samples/hour in Automatic mode



Simplify • Automate • Innovate

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