

Powerful, yet compact
and affordable.

COULTER AC•T diff Hematology Analyzer

Blood Banking
Centrifugation
Chemistry
Flow Cytometry
Hematology
Hemostasis
Immunoassay
Information Systems
Lab Automation
Molecular Diagnostics
Rapid Diagnostics



COULTER AC•T diff Hematology Analyzer

The COULTER AC•T diff hematology analyzer brings you improved laboratory efficiency through automation at an affordable price. This fully automated 16 or 18 parameter system offers a CBC and COULTER histogram differential, providing all the features that make producing fast, accurate and dependable results easy. The AC•T diff analyzer delivers the powerful performance and quality you expect from Beckman Coulter, providing cost effective solutions for today's clinical laboratory.

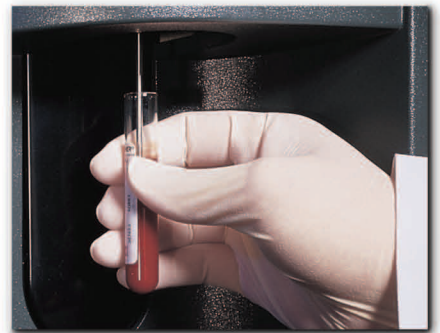
The standard by which other instruments are measured, the AC•T family of products are:

Simple

- Automated ease for all operators
- Touch screen, user-friendly interface
- Language-independent icons
- One-step sample processing for fast, easy analysis
- Automated probe wipe provides safe probe cleaning
- Fully automated startup and shutdown
- No routine maintenance, the system is ready when you are



Check sample mode and next ID number



Aspirate sample



View results in seconds

Flexible

- Alternate between whole blood and prediluted samples with the touch of a button
- Small 12 μ L sample size allows analysis from venous or capillary blood collections
- Two reagent packaging configurations to meet your laboratory's workload needs

Reliable

- Simple system design for maximum uptime
- Complete reagent system with market-specific quality control products developed for maximum performance
- Authentic COULTER technology: Triplicate counting, proven COULTER histogram differential, patented sweepflow technology and extended platelet counting provide accurate results
- Results available in less than 60 seconds

Affordable and Compact

- The ultimate value, offering optimum balance between cost and features for real benefits
- Minimal routine maintenance requirements and high systems reliability help contain costs
- Small, tabletop design is ideal for laboratories where space is at a premium

Support You Can Count On

- World class service and technical support network
- Fast, efficient technical support
- Quick service response time

Contact your Beckman Coulter representative today for more information on how the A^C•T diff can deliver value and reliable performance for your lab.



Evolution

The COULTER A^C•T diff hematology analyzer offers features and benefits you would expect on larger analyzers, including:

- Complete blood count, including white cell differential and histograms for WBC, RBC and PLT
- User-definable high/low flagging of patient results
- Graphical printout of results, including histograms
- Choice of six different reporting profiles
- Storage of up to 250 patient results
- Automated quality assurance functions
 - Automatic validation of quality control data (high/low flagging)
 - Storage for three levels of quality control data
 - Levey-Jennings graphs
 - Automated instrument calibration
- Automated download of Beckman Coulter hematology Interlaboratory Quality Assurance Program (IQAP) data
- Statistical summary of reproducibility, quality control and IQAP data
- Patient identification by entry of patient number and/or autonumbering
- Customizable report configuration with institutional header

COULTER AC•T diff Specifications

Methods and Technologies

- Coulter Principle: counting and sizing
- Triplicate counting
- Extended platelet counting
- Cyanmethemoglobin

18 Available Parameters

WBC	RDW
RBC	MPV
HGB	LY%
HCT	LY#
MCV	MO%
MCH	MO#
MCHC	GR%
PLT	GR#
PCT*	PDW*

Printed WBC, RBC, PLT Histograms

Sample Analysis Characteristics

- 12 μ L whole blood
- 20 μ L predilute, with onboard diluent dispense
- Automatic probe wipe
- Patient ID with autonumbering
- Single button operation
- User-definable patient sample flagging limits

Linearity

When tested using a stable sample having no interfering substances.

<u>Parameter</u>	<u>Linearity Range</u>	<u>Difference</u>
WBC	0.0 – 99.9 x 10 ³ cells/ μ L	$\pm$ 0.3 or $\pm$ 5.0%
RBC	0.0 – 7.00 x 10 ⁶ cells/ μ L	$\pm$ 0.05 or $\pm$ 5.0%
HGB	0.0 – 25.0 g/dL	$\pm$ 0.2 or $\pm$ 3.0%
PLT	0.0 – 999 x 10 ³ cells/ μ L	$\pm$ 10 or $\pm$ 10.0% (whichever is greater)

Precision

Imprecision is based on 31 replicate determinations of the same sample.

<u>Parameter</u>	<u>Range</u>	<u>% CV/SD</u>
WBC	6.0 – 15.0 x 10 ³ cells/ μ L	$\leq$ 3.0
RBC	3.00 – 6.00 x 10 ⁶ cells/ μ L	$\leq$ 3.0
HGB	12.0 – 18.0 g/dL	$\leq$ 2.0
MCV	80.0 – 100.0 fL	$\leq$ 3.0
PLT	200 – 500 x 10 ³ cells/ μ L	$\leq$ 7.0
MPV	5.0 – 20.0 fL	$\leq$ 3.0
RDW	12.0 – 15.0%	$\leq$ 3.0
LY	20 – 50%	$\leq$ 1.5 (S.D.)
MO	2.0 – 10.0%	$\leq$ 1.5 (S.D.)
GR	30.0 – 70.0%	$\leq$ 3.0 (S.D.)

Background Counts

<u>Parameter</u>	<u>Units</u>	<u>Count</u>
WBC	x 10 ³ cells/ μ L	$\leq$ 0.4
RBC	x 10 ⁶ cells/ μ L	$\leq$ 0.04
HGB	g/dL	$\leq$ 0.2
PLT	x 10 ³ cells/ μ L	$\leq$ 7.0

Carryover

High to low carryover is less than or equal to 2%

Printers

- Dot matrix graphics printer
- Single ticket printer
- Bubble jet printer

User Interface

- Touch screen
- Language-independent icons
- Single screen display of all results
- One button sample aspiration

Host Communication

RS232 with ASTM standards

Analyzer Dimensions/Weight

Height:	16.5 in	(42 cm)
Width:	15 in	(38 cm)
Depth:	15.4 in	(39 cm)
Weight:	30 lb	(14 kg)

Power Requirements

<u>Power</u>	<u>Input</u>
100 V + 10%	50/60 Hz
120 V + 10%	50/60 Hz
220 V + 10%	50/60 Hz
240 V + 10%	50/60 Hz

Consumption

Less than 120 W

Installation

Category II

Throughput

- Minimum of 50 samples/hour
- Results in less than 60 seconds

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

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