QBC STAR
Centrifugal Hematology Analyzer

The Simple Solution for CBC Testing

QBC® Diagnostics

Innovative Solutions for a Healthier World

UNRIVALED SIMPLICITY

The QBC STAR Centrifugal Hematology System is the simplest solution for in-office CBC testing. An innovative approach employing dry hematology reagents instead of the bulky liquid reagents utilized by other methods.

Exceptional Ease of Use

When it comes to operation, the STAR brings new meaning to the word simple. Unprecedented ease of use with one button operation--that's how simple a fully automated CBC analysis can be with the QBC STAR system. With minimal training, non-technical personnel can perform a CBC test with accuracy.

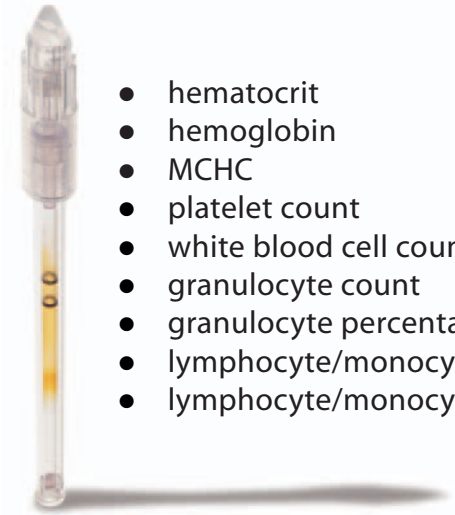
The STAR brings new meaning to the word simple

User calibration and maintenance are virtually unnecessary with the STAR. With every sample processed, the STAR system checks calibration.

Collection and Analysis Combined

The STAR system can change the way your in-office laboratory collects and analyzes samples. The difference lies in the STAR tube. It is flexible enough to use for both venous and capillary samples. Unlike other hematology systems, when performing a finger puncture you can use the STAR tube as the single vehicle for collection and analysis. The dry reagents contained in the tube facilitate testing and analysis safely, accurately, and without the liquid reagents and the biohazard waste of impedance counters. After analysis the STAR displays nine parameters both on the LCD screen and on a hard copy print out for your records.

The QBC STAR measures the clinically significant parameters most requested by physicians.



- hematocrit
- hemoglobin
- MCHC
- platelet count
- white blood cell count
- granulocyte count
- granulocyte percentage
- lymphocyte/monocyte count
- lymphocyte/monocyte percentage

Safety, Peak Performance and Cost Savings

The STAR is the safe, cost-effective advantage that can simplify CBC testing in your office. Why not reduce the time, steps and hassles involved in CBC testing? The STAR is one more reason QBC leads the industry in providing solutions that improve healthcare worker safety, simplify workflow processes and reduce medical errors.

Operating Ranges

Hematology Parameters measured with the QBC STAR system are valid over the following range of values:

Hematocrit	15-65%
Hemoglobin	5.0-20.0 g/dL
Platelet Count	20-999 x10^9/L
WBC Count	1.6-99.9 x10^9/L
Granulocyte Count	0.8-70.0 x10^9/L
Lymph/Mono Count	0.8-99.9 x10^9/L

Table 1

Accuracy comparing the QBC STAR system with the Coulter® STKS or Sysmex™ K1000.

Parameter	Correlation Coefficient	Slope	Intercept	QBC Mean	Cell Counter Mean	Range of Values	Number of Samples
Hematocrit (%)	0.983	0.973	2.572	36.5	34.8	15.7-61.7	646
Hemaglobin (g/dL)	0.984	0.982	0.387	12.1	12.0	5.2-18.5	638
Platelet (x 10^9/L)	0.962	0.935	17.701	244	242	23-913	558
WBC (x 10^9/L)	0.974	1.124	-.936	10.4	10.1	1.6-92.9	535
Granulocyte (x10^9/L)	0.972	0.991	0.152	7.0	7.0	0.8-45.0	535
Lymph/Mono (x10^9/L)	0.987	1.206	-.419	3.3	3.1	0.8-89.9	535

Table 2

Accuracy comparing the QBC STAR system against the international microhematocrit reference method.

Parameter	Correlation Coefficient	Slope	Intercept	QBC Mean	Reference Mean	Range of Values	Number of Samples
Microhematocrit (%)	0.986	1.023	-.650	36.5	36.3	15.7-61.9	646

Table 3

Precision data on typical within-run precision tests in the QBC STAR system are shown in the two tables below. The precision data represent the analysis of eleven whole blood specimens, each assayed in replicates of ten.

Parameter	Mean Value	Mean % CV
HCT (%)	41.7	2.0%
HB (g/dL)	14.0	1.9%
PLT (x 10^9/L)	235	6.0%
WBC (x10^9/L)	6.0	6.4%

Parameter	Range	Max S.D.
GRAN (%)	38-79	3.2
LYMPH/MONO (%)	21-63	3.2

General Specifications

Dimensions H16.3" x W16" x D16.3"
(41.4 cm x 40.6 cm x 41.4 cm)

Weight 30 lbs. (13.6 kg)

Sample Volume 70 µL

Display LCD Display
Resolution 160x160

Printout 58 mm thermal recorder paper

Electrical Specifications

Voltage 100-240 VAC ±10%

Frequency 47-63 Hz

Current less than 4 amperes

Power 185 watts nominal; 285 watts peak
293 BTU @ 3 tests per hour

Operating Environment

Non-Operating Temperature Requirements -2 °F to 149 °F (-20 °C to 65 °C)

Operating Temperature Requirements 60.8 °F to 89.6 °F (16° C to 32 °C) unrestricted; At 89.6 °F to 98.6 °F (32 °C to 37 °C) use may be limited by instrument temperature shutdown or some results may be suppressed

Humidity 10%-95% non-condensing

Altitude up to 6,562 ft. (2000 m)

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Form No. 149 Rev. B

STEP 1

Fill the tube with the patient sample up to the mark between the two lines, mix, then cap.

STEP 2

Position tube in the rotor.

STEP 3

Press start button.

STEP 4

Patient results will display on the LCD screen and also print for filing in patient chart.

QBC STAR Tube

Enlarged to show detail