BC-7500 CRP

Auto Hematology Analyzer

Principles

SF Cube method to count WBC, 6-part diff, NRBC,RET* and PLT-O*
(S: Scatter; F: Fluorescence; Cube: 3D analysis)
Focusing Flow-DC Impedance method for RBC and PLT
Cyanide free reagent for hemoglobin test
Latex Particle-Enhanced Immunonephelometry method for CRP test

Parameters

40 Reportable parameters(whole blood):

WBC, Lym%, Mon%, Neu%, Bas%, Eos%, IMG%, Lym#, Mon#, Neu#, Eos#, Bas#, IMG#; RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, NRBC#, NRBC%; PLT, MPV, PDW, PCT, P-LCR, P-LCC, RET%*, RET#*, RHE*, IRF*, LFR*, MFR*, HFR*, IPF*, FR-CRP, CRP, hs-CRP

29 Research parameters(whole blood):

HFC#, HFC%, RBC-O*, PLT-O*, PLT-I, WBC-O*, WBC-D, TNC-D, IME%, IME#, H-NR%, L-NR%, NLR, PLR, WBC-N, TNC-N, InR#, InR‰, Micro#, Micro%, Macro#, Macro%, RPI*, H-IPF*, IPF#*, MRV*, FRC#*, FRC%*, PDW-SD

7 Reportable parameters(body fluid):

WBC-BF, TC-BF#, MN#, MN%, PMN#, PMN%, RBC-BF

11 Research parameters (body fluid):

Eos-BF#, Eos-BF%, Neu-BF#,Neu-BF%, HF-BF#, HF-BF%, RBC-BF, LY-BF#, LY-BF%, MO-BF#, MO-BF%

2 Histogram for RBC and PLT

3 Three-dimension scatter grams: DIFF, WNB, RET*

5 Two-dimension scatter grams: DIFF, WNB, RET*, RET-EXT*, PLT-O*

Modes

CBC, CBC+DIFF, CBC+DIFF+RET*, CBC+RET*, RET*
CBC+DIFF+CRP, CBC+DIFF+RET*+CRP, CRP
CBC+RET/PLT-8X*, CBC+DIFF+RET/PLT-8X*

Sample type	Sample volume
Whole Blood	≤ 85ul
Capillary Blood +	CRP mode: ≤ 20 μL CBC, CD mode: ≤ 27.5 μL CDR*, RET*, CD+CRP, and other modes ≤ 36.5 μL (+: When using dedicated capillary blood tubes provided by Mindray)
Predilute Sample	≤ 20ul
Body Fluid	≤ 20ul

Sample type	Analysis modes	Throughput
Whole Blood	CBC/CD	Up to 110 T/H
	CD+CRP	Up to 100 T/H
	CDR/CDR+CRP	Up to 65 T/H
Capillary Blood +	CBC/CD/CD+CRP	Up to 70 T/H
	CDR/CDR+CRP	Up to 45 T/H

(+: When using dedicated capillary blood tubes provided by Mindray)

Performance

Parameter	Linearity Range	Precision	Carryover
WBC	0~500.00×10^9/L	≤ 2.5% (≥ 4.51×10^9/L)	≤1.0%
RBC	0.00~8.60×10^{12}/L	≤ 1.5% (≥3.50×10^{12}/L)	≤1.0%
HGB	0~260 g/L	≤ 1.0% (110～180) /L	≤1.0%
HCT	0.0~75.0%	≤ 1.5% (30.0～50.0)%	≤1.0%
PLT	0~5000×10^9/L	≤ 4.0% (≥100×10^9/L)	≤1.0%
RET#	(0.0000~0.8000)×10^{12}/L	≤ 15%(RBC≥ 3.00×10^{12}/L RET%:1.00%~4.00%)	/
FR-CRP	0.20mg/L~320.00mg/L	≤0.50mg/L(SD) (≤10mg/L) ≤4% (CV) (>10mg/L)	≤1.0%

Loading capacity

Up to 50 sample tubes

Data storage capacity

Up to 150,000 results including numeric and graphical information

Operating environment

Ambient temperature: 15℃ ~ 32℃

Relative humidity: 30% ~ 85%

Atmospheric pressure: 70.0 kPa ~ 106.0 kPa

*Only available in Reticulocyte configuration

www.mindray.com

P/N:ENG-BC-7500 CRP-210285X4P-20220217

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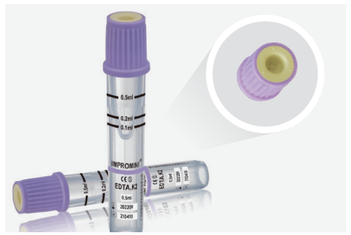
mindray
healthcare within reach

BC-7500 CRP
Auto Hematology Analyzer

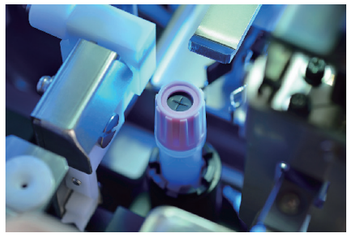
Empowering Pediatric Care

Capillary blood autoloading and mixing

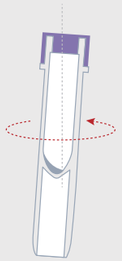
Capillary blood rack



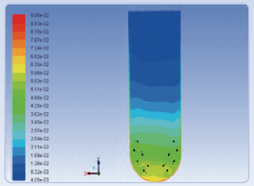
Dedicated capillary blood tube



Biotic mixing component



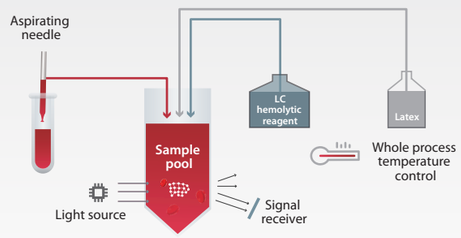
- Eccentric axis and continuously start and stop rotation
- Alternation between clockwise and counterclockwise

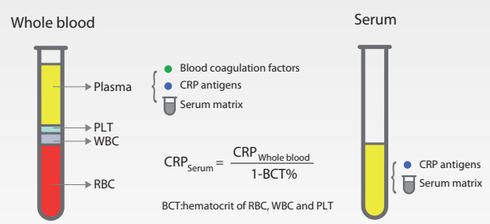


- Fully exchange of upper and lower blood samples ensures the best mixing performance of capillary blood

High speed CBC+CRP integrated analyzer

100T/H
CD+CRP





Constant temperature FAST

Preheat the reagent to reach the best reaction temperature faster

Sufficient mixing FAST

Control the speed, angle and time when adding reagent to enhance hemolysis and immune reaction

Efficient lyse reagent FAST

Efficient and specific multi-functional lyse reagent targets at the rigid components of cell membrane skeleton for fast dissolving

Stable reaction FAST

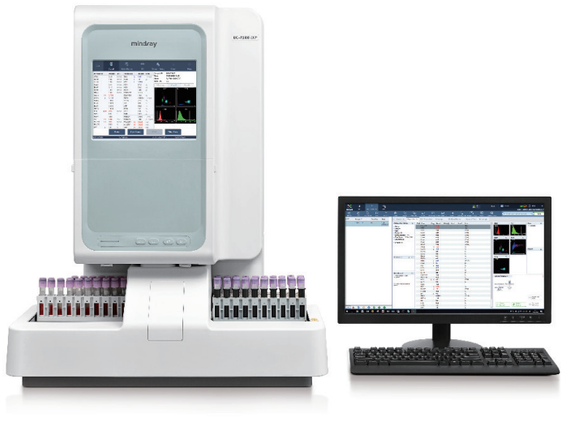
Pre-reaction hemolytic reagent
High signal latex reagent
Fixed site reaction
Early rapid reaction segment detection

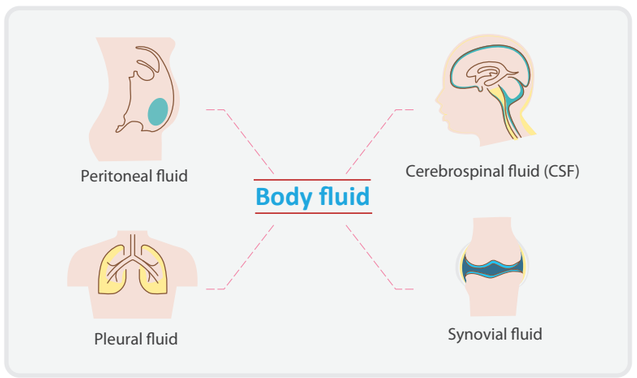
Reliable result ACCURATE

The function of CRP modification ensures that the result of CRP_{Serum} and $CRP_{whole\ blood}$ are consistent.

SF Cube

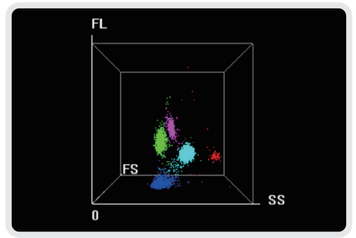
three-dimensional (3D) fluorescent cell analysis platform





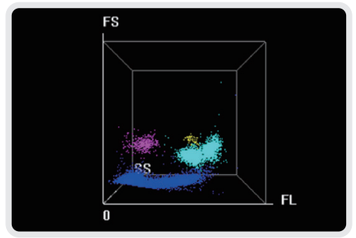
BF detection

• Can also detect 4 types of body fluids.



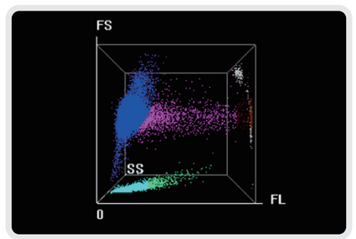
DIFF Channel

- WBC 6-part differential results including immature granulocyte.
- Provides research parameters such as HFC (Blast & Atypical Lymphocyte), InR (information about malaria) and flags for Band, NRBC, PLT clump and Atypical Lymphocyte.
- 3-times counting of low WBC ensures more reliable counting and differentiation result



WNB Channel

- Provides WBC, NRBC and Basophils results.
- NRBC in every CBC test helps to obtain reliable WBC result for neonatal sample
- It also helps the diagnosis for hemolytic anemia, hematopoietic diseases and reduce the review rate.



RET Channel

- Provides RET related parameters (i.e. RET#/RET%/LFR/MFR/HFR/RHE) which helps anemia diagnosis
- Fluorescent PLT result helps to remove the interference of fragmented RBC/PLT clump
- /large PLT, etc.
- Automatic PLT-O* 8 times extended counting helps to obtain reliable PLT result even in low count.