

BS-430

Chemistry Analyzer



mindray
healthcare within reach

Chemistry Reagents

Hepatic Panel

Alanine Aminotransferase (ALT)
Aspartate Aminotransferase (AST)
Alkaline Phosphatase (ALP)
 γ -Glutamyl Transferase (γ -GT)
Direct Bilirubin (D-Bil) DSA Method
Direct Bilirubin (D-Bil) VOX Method
Total Bilirubin (T-Bil) DSA Method
Total Bilirubin (T-Bil) VOX Method
Total Protein (TP)
Albumin (ALB)
Total Bile Acids (TBA)
Prealbumin (PA)
Cholinesterase (CHE)

Renal Panel

Urea (UREA)
Creatinine (CREA) Modified Jaffé Method
Creatinine (CREA) Sarcosine Oxidase Method
Uric Acid (UA)
Carbon Dioxide (CO₂)
Microalbumin (MALB)
 β 2-Microglobulin (β 2-MG)
Cystatin C (CysC)
Retinol Binding Protein (RBP)
Total Protein In Urine & CSF (TPUC)

Cardiac Panel

Creatine Kinase (CK)
Creatine Kinase-MB (CK-MB)
Lactate Dehydrogenase (LDH)
 α -Hydroxybutyrate Dehydrogenase (α -HBDH)
Full Range C-reaction Protein(FR-CRP)

Diabetes Panel

Glucose (Glu) GOD-POD Method
Glucose (Glu) HK Method
Hemoglobin A1c (HbA1c)
Fructosamine (FUN)
 β -Hydroxybutyrate (β -HB)

Inorganic & Anemia

Iron (Fe)
Ferritin (FER)
Transferrin (TRF)
Calcium (Ca)
Magnesium (Mg)
Phosphate Inorganic (P)
Unsaturated Iron Binding Capacity (UIBC)
Glucose-6-phosphate Dehydrogenase (G6PD)

Lipid Panel

Total Cholesterol (TC)
Triglycerides (TG)
HDL-Cholesterol (HDL-C)
LDL-Cholesterol (LDL-C)
Apolipoprotein A1 (ApoA1)
Apolipoprotein B (ApoB)
Lipoprotein(a) (Lp(a))

Immune Panel

Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Complement C3 (C3)
Complement C4 (C4)

Rheumatism Panel

C-reactive Protein (CRP)
Rheumatoid Factor (RF)
Antibodies Against Streptolysin O (ASO)

Pancreatitis Panel

α -Amylase (α -AMY)
Lipase (LIP)

Lung Panel

Adenosine Deaminase (ADA)
Angiotensin Converting Enzyme (ACE)

BS-430

Chemistry Analyzer



Precise pipetting system

Highly polished probes are equipped with multiple technologies to ensure the accuracy and reliability. The minimum sample volume is as low as 1.5 μ L.



Efficient washing system

Interior and exterior washing reduces the carry-over of sample probe to be less than 0.05%. Pre-warmed de-ionized water and detergent ensures the cleanliness of cuvettes.



Intelligent mixing system

Stepper motors with speed monitoring optimizes the mixing effect.



Advanced optical system

The technology-enhanced grating photometer effectively reduces the stray light and enhances the measuring accuracy of test results. The dot light source lowers the minimum reaction volume to 100 μ L and maximizes the cost efficiency. Prolong the service life of the lamp by auto sleep function.



Reliable heating system

The maintenance-free direct solid heating technology stabilizes the reaction temperature at 37 $^{\circ}$ C. 24-hour refrigeration maintains the temperature of reagent compartment between 2~8 $^{\circ}$ C.





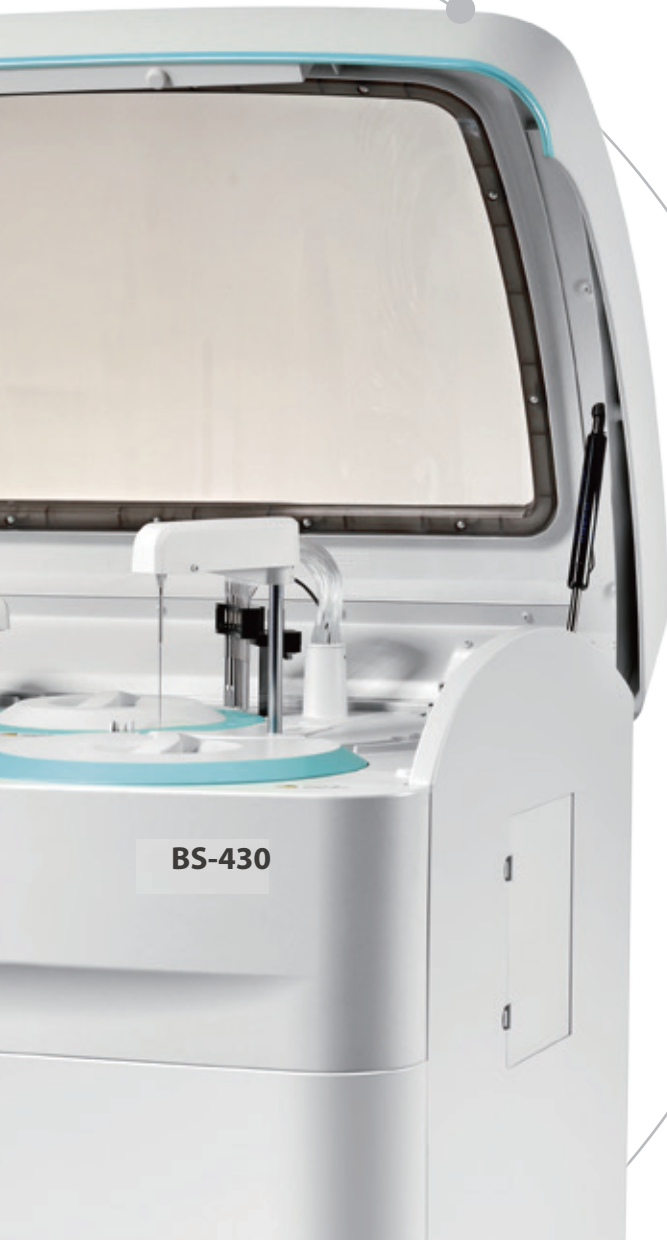
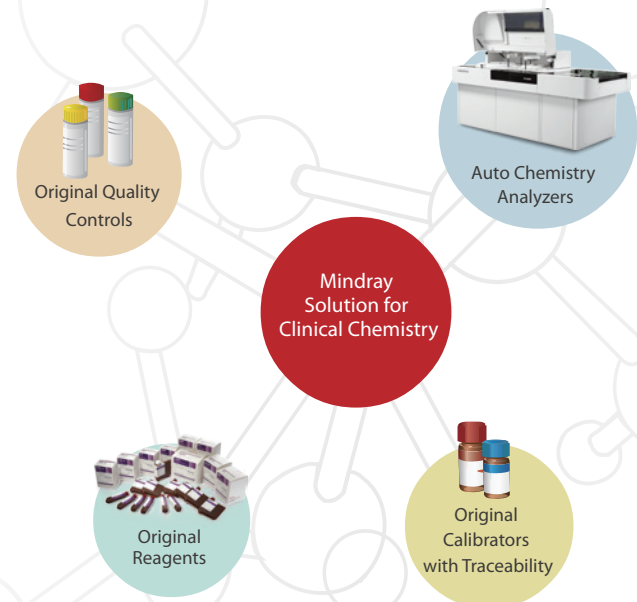
New software platform

Inherited from Mindray high-end products, the user-friendly software integrates more practical functionalities and makes itself more easy-to-use. The step-by-step maintenance guide allows the maintenance easier and more comprehensive.



Total solution for clinical chemistry

Dedicate to providing a total solution for clinical chemistry with traceability to ensure the ultimate accuracy of test results.



Optimized integration of the whole system

All parameters are optimized during the integration to maximize the reliability of test results.



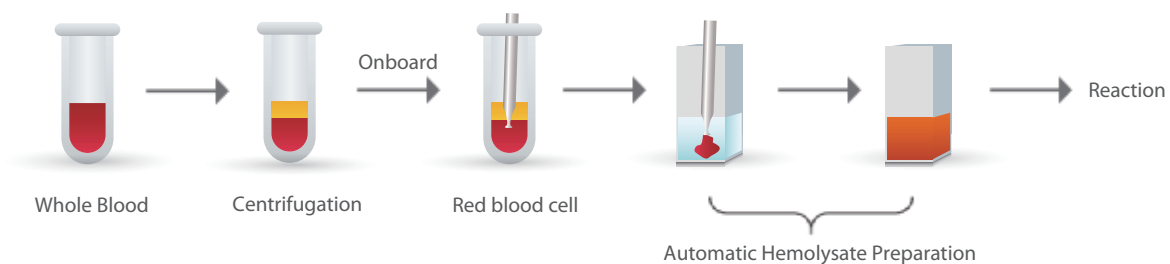
HbA1c smart-sampling

The smart-sampling technology allows on-board hemolysis for HbA1c.



HbA1c Smart-sampling Technology

BS-430 chemistry analyzer utilizes HbA1c smart-sampling technology, which allows onboard automatic hemolysate preparation for whole blood samples, thus achieving shorter turnaround time (TAT) and eliminating any biohazardous risks or any errors by manual operation.



Mindray HbA1c assays of enzymatic method, with application of specified protease and Fructosyl Peptide Oxidase (FPOX), has a good correlation with HPLC method. The enzymatic method is proven to have high precision, specificity and better performance to avoid interference from hemoglobin variants, and it is traceable to IFCC/NGSP reference methods.

BS-430

Chemistry Analyzer

Technical Specifications

System Function: Automatic, discrete, random access, STAT sample priority
Throughput: 420 photometric tests per hour, up to 626 tests per hour with ISE
On-board tests: 90 photometric tests + 3 ISEs + 3 serum indices

Sample Handling:
Sample tray: 102 sample positions,
Sample volume: 1.5 μ L~45 μ L, step by 0.1 μ L
Sample probe: Liquid level detection, collision protection, clog detection (optional), and auto-dilution, automatic hemolysis
Carry-over \leq 0.05 μ L

Reagent Handling:
Reagent tray: 92 reagent positions with 24-hour refrigeration 2~8 $^{\circ}$ C,
Reagent volume: 10 μ L~200 μ L, step by 0.5 μ L
Reagent probe: Liquid level detection, collision protection, bubble detection, concentrated reagent with auto-dilution

Built-in Bar Code Reader (optional):
Sample and reagent bar code readers support Codabar, ITF (Interleaved Two of Five), Code128, Code39, UPC/EAN and code93, Capable to connect with LIS in Bi-directional mode

Reaction System:
Cuvettes: 93 reusable cuvettes with 8-step auto-washing
Reaction temperature: 37 \pm 0.1 $^{\circ}$ C
Reaction volume: 100~300 μ L
Mixing system: 2 independent mixers with speed detection

Optical System:
Light source: 12V 20W tungsten-halogen lamp
Photometer: Grating system
Wavelength: 340nm, 380nm, 412nm, 450nm, 505nm, 546nm, 570nm, 605nm, 660nm, 700nm, 740nm, 800nm
Absorbance range: 0~3.5A

ISE Module (Optional):
K⁺, Na⁺, Cl⁻

Control and Calibration:
Calibration mode: K factor, Linear (two points and multi-points), Logit-Log 4P, Logit-Log 5P, spline, exponential, polynomial, parabola, Logit-log3P, broken line
Control rules: Westgard multi-rule, Levey-Jennings, Cumulative sum check, Twin plot

Operation Unit:
Operation system: Windows 10
Interface: RS-232 serial port

Working Conditions
Power supply: 220V-240V, 50/60Hz, \leq 1000VA or 110V-130V, 60Hz, \leq 1000VA
Water consumption: \leq 20 L/H
Dimension: 1050 mm (W) * 720 mm (D) * 1150 mm (H)
Weight: \leq 200 Kg

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P/N: ENG-BS-450-210285x6-20170423

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BS-480 Chemistry Analyzer

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BS-480 Chemistry Analyzer

Robust hardware

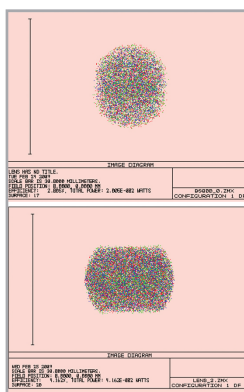
Enhanced Liquid System

- Precise sample and reagent aspiration
- Built in air bubble elimination prior to washing
- High pressure interior probe wash
- Carry-over <0.05%



Economy Usage

- Light-Spot Flattening Technology facilitates lower reaction volume
- 24 hour non-stop refrigeration at 2-10°C
- Minimum sample volume: 1.5 µl
- Reagent volume: 10 ~ 350 µl
- States Cuvette Volume: 120~360µl



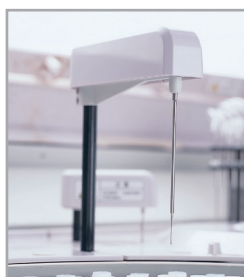
Easy to perform maintenance

- Front loaded reagent compartment for easier access
- Easy access for routine maintenance and troubleshooting
- Built in Step-by-Step maintenance guide



Intelligent Probe System functions and smart protection

- Supports methods with up to 4 reagents
- Vertical and horizontal collision protection
- Automatic System Recovery
- Liquid level detection, clot detection



Tailor made

Advanced software



User-friendly Interface

- Real-time analytical and carousel status monitoring
- Bi-directional LIS interface transmission



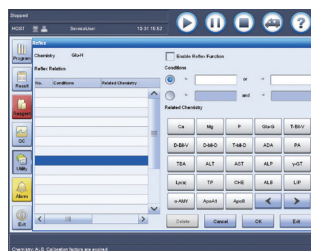
Real-time QC Status Monitoring

- Levy-Jennings chart and Twin-Plot chart
- QC Out-of-Range real-time alarm
- Customizable periodic QC reminder



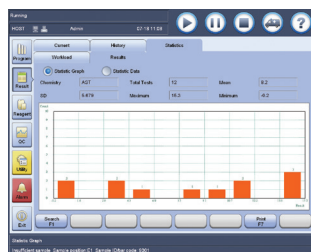
Traceable Test Results

- Historic data recall from reagent/ calibrator/ control archive
- Intuitive software, intuitive software design, easy historical results



Reflex Function

- User-defined customizable reflexive assays
- Multiple reflexive criteria may apply to a single assay
- A single reflexive criteria may apply up to 20 assays



Test Summary

- Test summary reports & sample rerun available on all assays and Quality Assurance
- Facilitate computation of total test costs
- Error Log Export function -facilitate error report to engineers
- Results Archive can be transferred to engineers for evaluation

for your lab

Accurate, Reliable Results

To ensure accuracy, reliability and correlation of diagnostic data, Mindray utilizes the International Standard in result reporting. To assure ease of report retrieving, Mindray establishes the Mindray Clinical Chemistry Measurement System for result traceability.



Standard reference system

- Adopt JCTLM reference system
- IFCC primary method for enzyme, ID/MS method for substrate
- NIST, IRMM reference materials



JCTLM, Joint Committee On Traceability In Laboratory Medicine

NIST, National Institute of Standards and Technology, USA

IRMM, Institute for Reference Materials and Measurements, EU

IFCC, International Federation of Clinical Chemistry and Laboratory Medicine

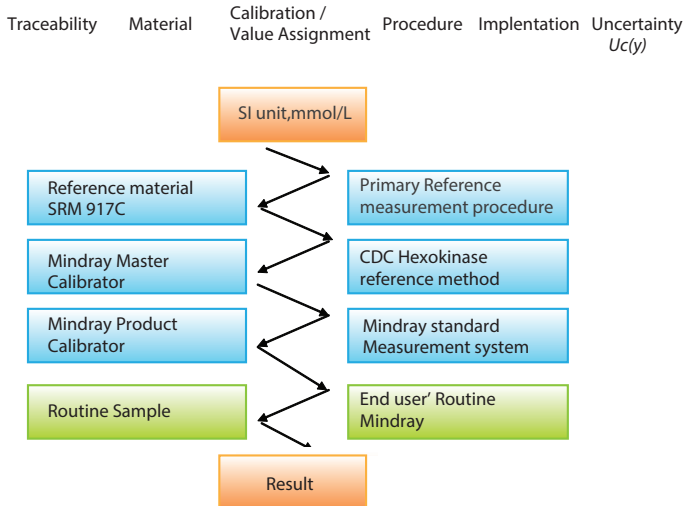
Complete traceability process

- Complete calibration hierarchy and traceability chain based on ISO standard (EN/ISO17511) from reference system to routine measurement system

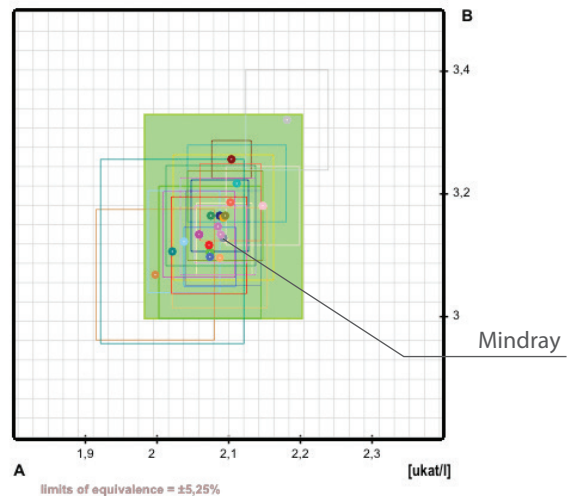
Proficiency testing for reference measurement

- Participate RELA (External quality control for reference laboratory) to verify the accuracy of the value assignment procedure.

Traceability chain of Mindray measurement system (Glu)



ALT



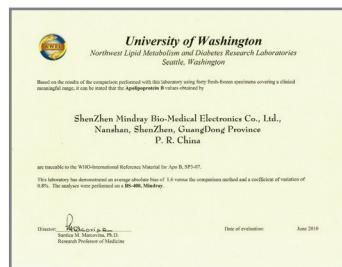
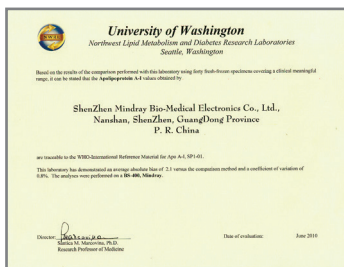
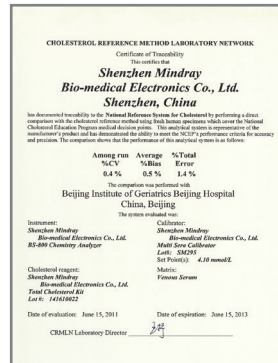
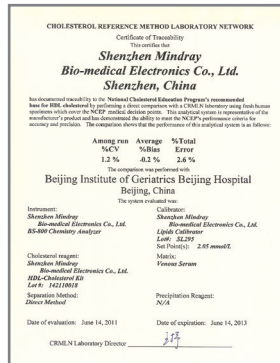
International standardization certification

- International Standardization certificates of Cholesterol and HbA1c from CRMLN and NGSP.

More information refers to website (<http://www.cdc.gov>).

CRMLN (Cholesterol Reference Method of Laboratory Network)

NGSP(National glycosylated hemoglobin standardization program)



Matched calibrators and controls

- Dedicated calibrators with traceability and specific target value
- Convenient design of multi items of calibrators and controls combined into one vial
- Long shelf life of lyophilized powder

Dedicated, high-quality reagents

- Diagnostic function test panels

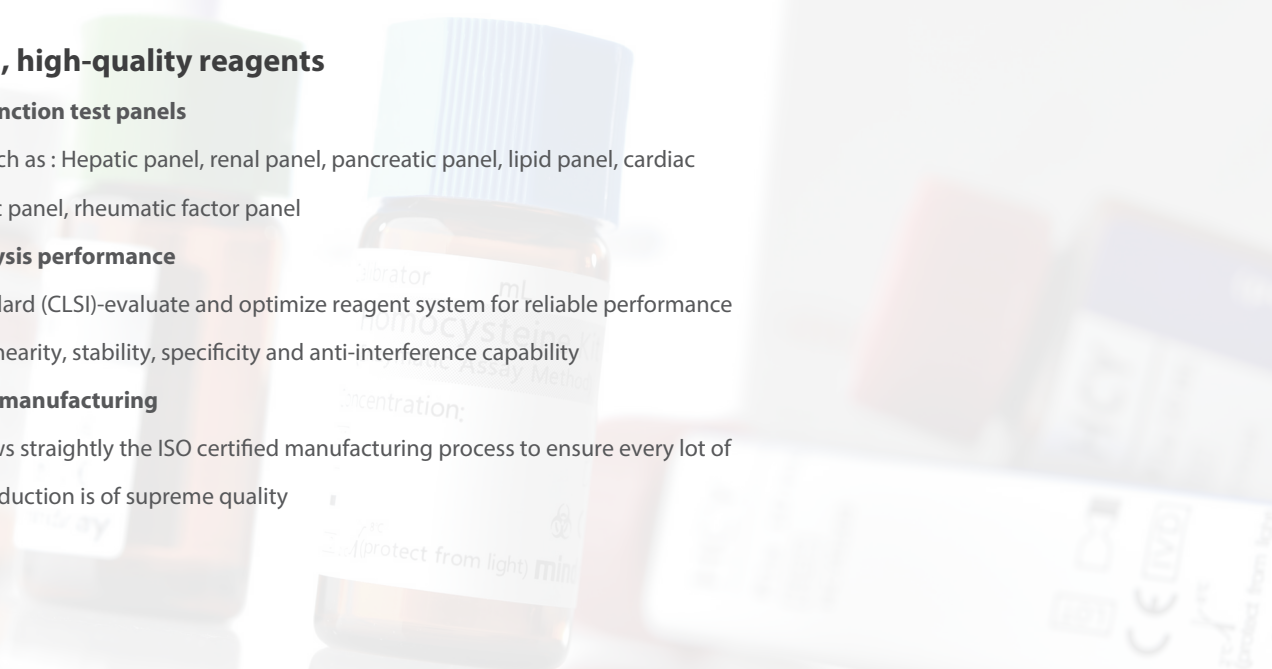
Test panels such as : Hepatic panel, renal panel, pancreatic panel, lipid panel, cardiac panel, diabetic panel, rheumatic factor panel

- Reliable analysis performance

EP series standard (CLSI)-evaluate and optimize reagent system for reliable performance in precision, linearity, stability, specificity and anti-interference capability

- ISO standard manufacturing

Mindray follows straightly the ISO certified manufacturing process to ensure every lot of reagent in production is of supreme quality



Reagent Menu

Hepatic Panel

Alanine Aminotransferase (ALT)
Aspartate Aminotransferase (AST)
Alkaline Phosphatase (ALP)
 γ -GlutamylTransferase (γ -GT)
Direct Bilirubin (D-Bil) DSA Method
Direct Bilirubin (D-Bil)VOX Method
Total Bilirubin (T-Bil) DSA Method
Total Bilirubin (T-Bil)VOX Method
Total Protein (TP)
Albumin (ALB)
Total Bile Acids (TBA)
Prealbumin (PA)
Cholinesterase (CHE)
 α -L-fucosidase (AFU)
5'-nucleotidase (5'-NT)

Renal Panel

Urea (UREA)
Creatinine (CREA) Modified Jaffé Method
Creatinine (CREA)Sarcosine Oxidase Method
Uric Acid (UA)
Carbon dioxide (CO₂)
Microalbumin
 β 2-Microglobulin (β 2-MG)
Cystatin C (CysC)
Retinol binding protein(RBP)

Cardiac panel

Creatine Kinase (CK)
Creatine Kinase-MB (CK-MB)
Lactate Dehydrogenase (LDH)
 α -Hydroxybutyrate Dehydrogenase(α -HBDH)
High sensitive C-reaction protein(HS-CRP)
Homocysteine (HCY)
Myoglobin(MYO)
D-Dimer(D-Dimer)

Inorganic & Anemia

Iron (Fe)
Ferritin (FER)
Transferrin (TRF)
Calcium (Ca)
Magnesium (Mg)
Phosphate Inorganic (P)
Unsaturated iron binding capacity (UIBC)
Glucose-6-phosphate dehydrogenase (G6PD)

Lipid Panel

Total Cholesterol (TC)
Triglycerides (TG)
HDL-Cholesterol (HDL-C)
LDL-Cholesterol (LDL-C)
Apolipoprotein A1 (ApoA1)
Apolipoprotein B (ApoB)
Lipoprotein(a) [Lp(a)]

Immune Panel

Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Immunoglobulin E (IgE)
Complement C3 (C3)
Complement C4 (C4)

Diabetes Panel

Glucose (Glu) GOD-POD Method
Glucose (Glu) HK Method
Hemoglobin A1c (HbA1c)
Fructosamine (FUN)
 β -Hydroxybutyrate(β -HB)

Rheumatism Panel

C-reactive protein (CRP)
Rheumatoid Factor (RF)
Antibodies Against Streptolysin O (ASO)

Pancreatitis Panel

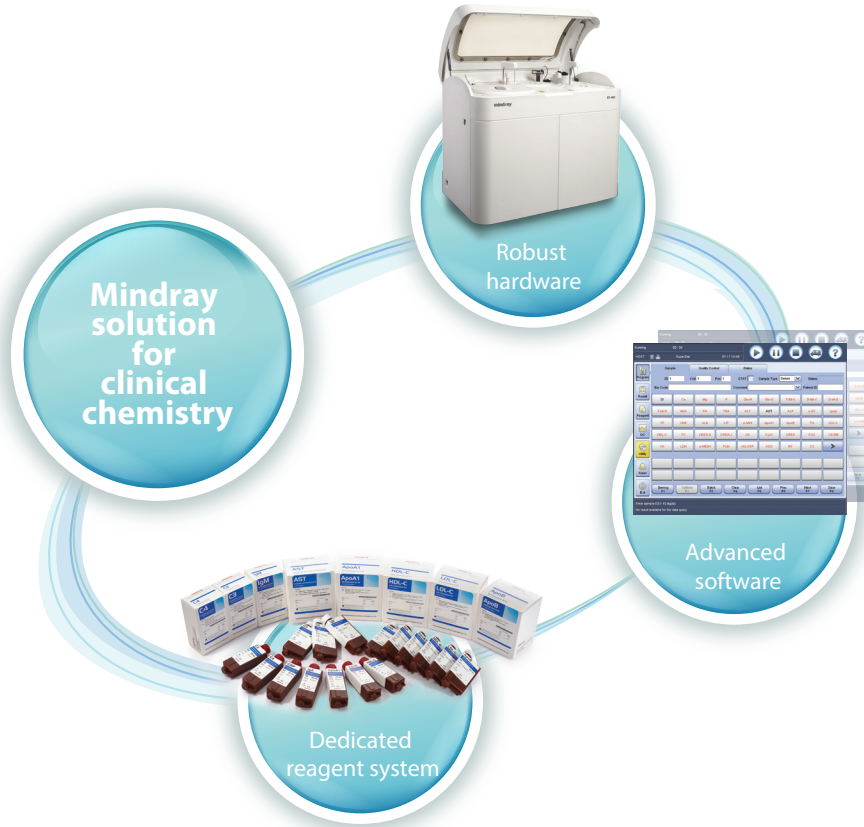
α -Amylase (α -AMY)
Lipase (LIP)

Lung Panel

Adenosine Deaminase (ADA)
Angiotensin Converting Enzyme(ACE)



Mindray solution for clinical chemistry



Mindray can now provide 60 parameters of dedicated reagents (more than 8 others are coming), covering hepatic, renal, cardiac, lipids, diabetes, pancreatitis, inorganic ions and immunoassays, etc., together with original calibrators with metrological traceability as well as controls for BS-480 chemistry analyzer.



BS-480 Chemistry Analyzer

Technical Specifications

System function

Fully automated, discrete, random access,
STAT, urine and homogeneous immunoassays; STAT sample priority
Throughput: 400 photometric tests/hour, up to 240 tests/hour for ISE
Measuring principles: Absorbance Photometry, Turbidimetry
Methodology: End-point, Fixed-time, Kinetic, ISE (Optional)
Single/Dual/Triple/Quadruple reagent chemistries,
Monochromatic/Bichromatic
Programming: User defined profiles and calculation

Sample Handling

Sample tray: 90 positions for primary or secondary tubes and sample cups
Sample volume: 1.5~45 μ l, step by 0.1 μ l
Sample probe: Liquid level detection, clot detection and collision protection
Probe cleaning: Interior and exterior automatic probe washing
carry-over < 0.05%
Automatic sample dilution, Pre-dilution and post-dilution
Dilution with ratio up to 1: 150
Dilution vessel: Quartz cuvette

Internal bar code reader

Sample/Reagent barcode reading
including Codabar, ITF (Interleaved Two of Five), code128, code39,
UPC/EAN, Code93; Bi-directional LIS Interface transmission

ISE Module (optional)

Optional selection of K^+ , Na^+ , Cl^-
Throughput: Up to 240 tests per hour

Reagent Handling

Reagent tray: 80 positions in refrigerated compartment (2~10°C)
Reagent volume: 10~350 μ l
Reagent probe: Liquid level detection, collision protection and
inventory check
Probe cleaning: Interior and exterior automatic probe washing

Reaction System

Reaction rotor: Rotating tray, 90 cuvettes with automatic washing
Cuvette: Optical length 5mm
Reaction volume: 120~360 μ l
Operating temperature: 37°C
Temperature fluctuation: \pm 0.1°C
Mixing system: 2 independent mixers

Optical System

Light Source: Halogen-tungsten lamp
Photometer: Reversed optics, grating photometry
Wavelength: 340nm, 380nm, 412nm, 450nm, 505nm, 546nm,
570nm, 605nm, 660nm, 700nm, 740nm, 800nm
Absorbance range: 0~3.3Abs (10mm conversion)
Resolution: 0.0001Abs

Control and Calibration

Calibration mode: Linear (one-point, two-point and multi-point), Logit
-Log 4P, Logit-Log 5P, Spline, exponential, Polynomial,
Parabola
Control rules: Westgard multi-rule, Levy-Jennings, Cumulative sum
check, twin plot

Operation Unit

Operation system: Windows 8
Interface: RS-232, Network Port, USB/ parallel port

Working Conditions

Power Supply: 200~240V, 50/60Hz, 1500VA
or 110~130V, 60Hz, 1500VA
Temperature: 15~30°C
Humidity: 35~85%
Water consumption: \leq 20L/hour, De-ionized water
Dimension: 1180mm x 710mm x 1150mm (W x D x H)
Weight: 300 Kg

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Mindray is listed on the NYSE under the symbol "MR"

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P/N:ENG-BS-480-210285x8-20140605

mindray



BS-240

Clinical Chemistry Analyzer



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healthcare within reach



Flexible loading:

Up to **80** sample positions,

Up to **80** reagent positions.

(40 fixed + 40 interchangeable)

Smart-Sampling Technology

Automatic hemolysate
preparation for
HbA1c test



100 μ l
minimum reaction volume



Upgraded auto-washing system
ensures low carryover and low water
consumption.



BS-240

Clinical Chemistry Analyzer

Compact Size with Robust Functions



Independent mixing bar



Built-in barcode reader



Intelligent software with user-friendly interface



Step-by-step maintenance guide



Waterfall probe cleaning

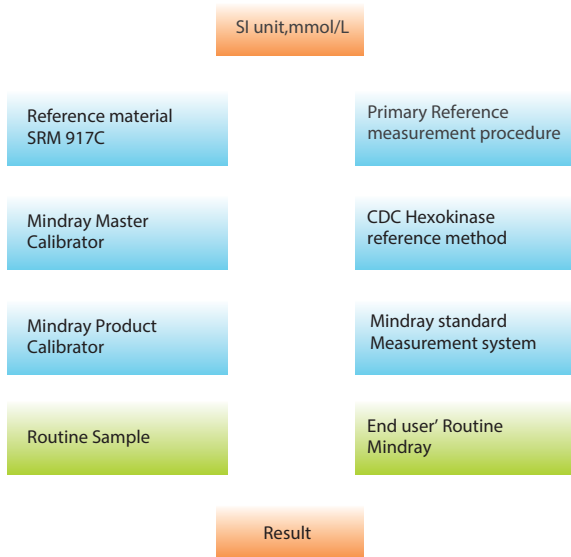
BS-240

Complete traceability process

Complete calibration hierarchy and traceability chain are based on ISO standard (EN/ISO17511) from reference system to routine measurement system.

Traceability chain of Mindray measurement system (Glu)

Traceability Material Calibration / Value Assignment Procedure Implementation Uncertainty $U_c(y)$

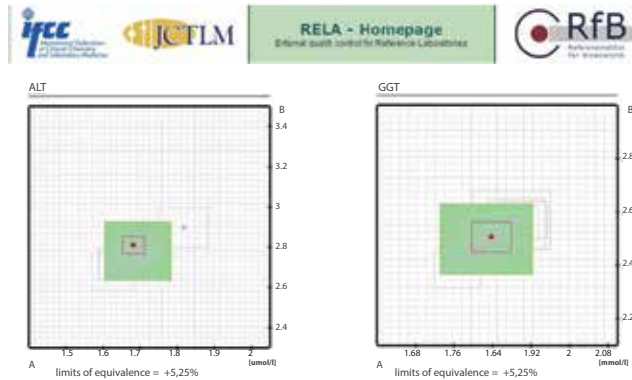


External quality assurance for reference measurement

Mindray participates in RELA (External quality control for reference laboratory) and CAP (College of American Pathologists external quality control).

EQA for Mindray Reference laboratory——RELA

Mindray reference laboratory has passed RELA for 6 consecutive years.



More RELA results please refer to: www.dgkl-rfb.de/81

RELA All the items Mindray participate RELA
 ALT AMY ALP CK GGT GLU LDH TB TP UA UREA

EQA for Mindray Testing System——CAP

Mindray testing system has passed CAP for 6 consecutive years.



CAP Number: 7198395-01 Kit# 1
 Institution: Shenzhen Mindray Biomed Elec Co Ltd
 Attention: LiXing Liu MD
 City / State: Hongkong HK CH 518055
 Kit ID: 25733824
 Kit Mailed: 6/3/2013
 Original Evaluation: 7/8/2013

EVALUATION ORIGINAL

C-B 2013 Chemistry

CAP

CAP #: 7198395 Subspecialty: Routine Chemistry

Regulated Analyte	Proficiency Event 2012 3			Proficiency Event 2013 1			Proficiency Event 2013 2			Current Event Performance Interpretation	Cumulative CLIA '88 Performance Interpretation
	Test Event	Score	%	Test Event	Score	%	Test Event	Score	%		
ALT	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Albumin	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Alkaline Phosphatase	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Amylase	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
AST	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Bilirubin, Total	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Calcium, Total	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Chloride	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Cholesterol, Total	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Cholesterol, HDL	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Creatine Kinase	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Creatinine	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Glucose	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Iron, Total	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
LD	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Magnesium	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Potassium	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Sodium	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Protein, Total	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Triglycerides	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Urea Nitrogen	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful
Uric Acid	C-C	5/5	100	C-A	5/5	100	C-B	5/5	100	Satisfactory	Successful

Reagent menu

Hepatic Panel

Alanine Aminotransferase (ALT)
Aspartate Aminotransferase (AST)
Alkaline Phosphatase (ALP)
 γ -GlutamylTransferase (γ -GT)
Direct Bilirubin (D-Bil) DSA Method
Direct Bilirubin (D-Bil)VOX Method
Total Bilirubin (T-Bil) DSA Method
Total Bilirubin (T-Bil)VOX Method
Total Protein (TP)
Albumin (ALB)
Total Bile Acids (TBA)
Prealbumin (PA)
Cholinesterase (CHE)
 α -L-fucosidase (AFU)
5'-nucleotidase (5'-NT)

Renal Panel

Urea (UREA)
Creatinine (CREA) Modified Jaffé Method
Creatinine (CREA)Sarcosine Oxidase Method
Uric Acid (UA)
Carbon dioxide (CO₂)
Microalbumin
 β 2-Microglobulin (β 2-MG)
Cystatin C (CysC)
Retinol binding protein(RBP)

Immune Panel

Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Complement C3 (C3)
Complement C4 (C4)

Diabetes Panel

Glucose (Glu) GOD-POD Method
Glucose (Glu) HK Method
Hemoglobin A1c (HbA1c)
Fructosamine (FUN)
 β -Hydroxybutyrate(β -HB)

Cardiac panel

Creatine Kinase (CK)
Creatine Kinase-MB (CK-MB)
Lactate Dehydrogenase (LDH)
 α -Hydroxybutyrate Dehydrogenase(α -HBDH)
High sensitive C-reaction protein(HS-CRP)

Inorganic & Anemia

Iron (Fe)
Ferritin (FER)
Transferrin (TRF)
Calcium (Ca)
Magnesium (Mg)
Phosphate Inorganic (P)
Unsaturated iron binding capacity (UIBC)
Glucose-6-phosphate dehydrogenase (G6PD)

Lipid Panel

Total Cholesterol (TC)
Triglycerides (TG)
HDL-Cholesterol (HDL-C)
LDL-Cholesterol (LDL-C)
Apolipoprotein A1 (ApoA1)
Apolipoprotein B (ApoB)
Lipoprotein(a) [Lp(a)]

Rheumatism Panel

C-reactive protein (CRP)
Rheumatoid Factor (RF)
Antibodies Against Streptolysin O (ASO)

Lung Panel

Adenosine Deaminase (ADA)
Angiotensin Converting Enzyme(ACE)

Pancreatitis Panel

α -Amylase (α -AMY)
Lipase (LIP)

BS-240

Clinical Chemistry Analyzer

Technical Specifications

System function

Automatic, Discrete, Random Access, Bench-top

STAT sample priority

Throughput: Up to 200 tests/hour, up to 400 tests/hour with ISE

Measuring principles: Absorbance photometry, Turbidimetry, Ion

Selective Electrode technology

Methodology: End-point, Fixed-time, Kinetic, optional ISE,
Single/Dual/ reagent chemistries,
monochromatic / bi-chromatic

Original system pack reagent ready to use

Close system and open system is optional

Reagent/Sample Handling

Reagent/Sample tray: 80 positions for reagents and 40 positions
for samples in 24-hour refrigerated
compartment (2~12 °C)

Reagent volume: 10~250µl, step by 0.5µl

Sample volume: 2~45µl, step by 0.1µl

Reagent/Sample probe: Liquid level detection, vertical collision
protection and inventory checking, reagent pre-warming

Probe cleaning: Automatic washing for interior and exterior
Carry over < 0.05%

Automatic sample dilution: Pre-dilution and post-dilution

Internal bar code reader (optional)

Used for sample and reagent programming

Be applicable to various bar code systems of Codabar、ITF
(Interleaved Two of Five)、code128、code39、UPC/EAN、
Code93

Capable to communicate with LIS in bi-directional mode

Reaction System:

Reaction rotor: Rotating tray, containing 40 cuvettes

Cuvette: Reusable, optical length 5mm

Reaction volume: 100~360µl

Operating temperature: 37 °C

Temperature fluctuation: ± 0.1 °C

ISE Module (optional)

Measuring K+, Na+, Cl-

Mixing Unit

Independent mixing bar

Cuvette Washing: Washing station with pre-warmed detergent
and water

Optical System

Light Source: Halogen-tungsten lamp

Wavelength: 8 wavelengths, 340nm、405nm、450nm、
510nm、546nm、578nm、630nm、670nm

Absorption range: 0~4.0 Abs (10mm conversion), resolution
0.0001Abs

Stray Light 5.6Abs

Control and Calibration

Calibration modes: Linear (one point, two points and
multi-points), Logit-Log 4P, Logit-Log 5P,
spline, exponential, polynomial, parabola

Control Rules: X-R, L-J, Westgard multi-rule, Cumulative sum
check, twin plot

Operation Unit

Operation system: Windows 8

Interface: RS-232

Working Conditions

Power Supply: 200~240V, 50/60Hz, ≤1000VA or 100~130V,
60Hz, ≤1000VA

Dimension: 690 mm (length) ×580 mm (depth) ×595 mm
(height)

Weight: 79 kg

Water Consumption: ≤ 4 L/H

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