# BIOBASE®

# Clinical & Analytical

## BIOBASE GROUP

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# Introduction

BIOBASE Group is a professional manufacturer of laboratory and medical products since 1999. Our main products in Medical are Auto chemistry analyzer, IVD Reagents, Auto ELISA processor, ELISA Microplate reader & washer, Hematology analyzer, Electrolyte analyzer, Urine analyzer, etc. In Laboratory mainly are Biological safety cabinet, Fume hood, Laminar flow cabinet, etc.

We have more than 5,000 employees and 14 factories. The wide experience on the research and manufacturing Lab and Medical products has managed BIOBASE to be able to offer a large range of competitive products with the highest quality.

Our advantages:
Excellent R&D team of more than 150 researchers.
Experienced after-sales service engineers more than 100 persons.
20 years production experience and national standard factory workshop.
Strong QC team to inspect all production stage, from the accessories to the finished products.
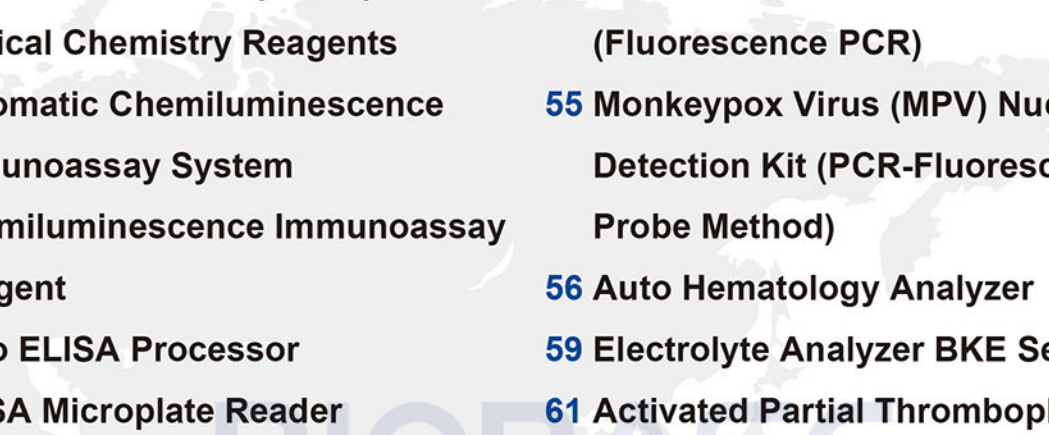ISO9001, ISO13485, CE certificate.

ISO9001　　ISO13485　　CE　　FDA

# Contents

# Automatic Chemistry Analyzer

## 01

### Reaction Module

Long lifetime halogen lamp, stable light source.
340, 405, 450, 480, 505, 546, 570, 600, 630, 700, 750, 800nm twelve wavelength filters.
37°C stable incubation system.

## 03

### Accurate Sample & Reagent Adding System

Accurate sampling pump, sample adding 0.1μl stepping, reagent adding 1μl stepping. Sample & reagent probes with liquid level sensor and anti-collision functions.
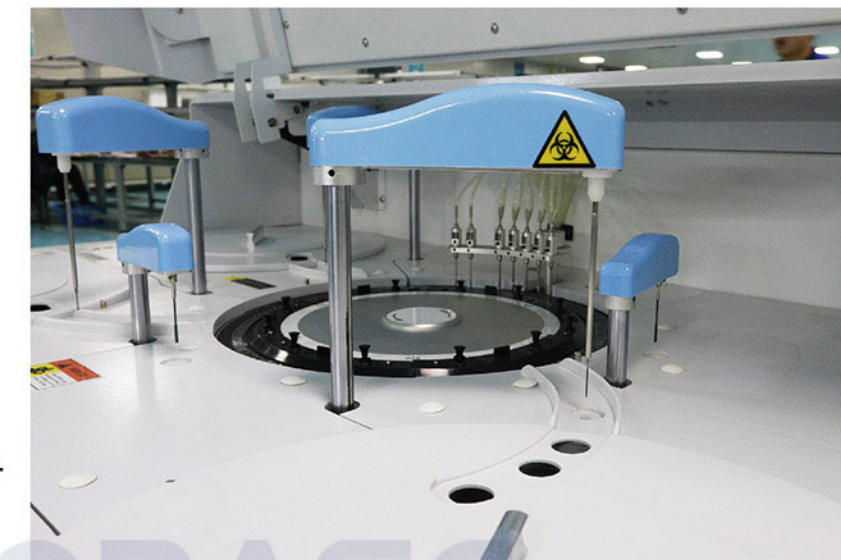
## 02

### Functional Software

Sample information batch and combination input quickly and easily. 24 hours working, with STAT function. Special designed software surface for engineer to monitor whole instrument status clearly.
LIS system available.

## 04

### Sample and Reagent Tray

Reagent tray with 24 hours cooling system. Reagent volume real-time detection, with remaining volume display online.

# 200T/H Automatic Chemistry Analyzer
# BK-200 (Previous BK-200mini)

**Parameters:**

## Overall appearance:

One probe for reagents and samples;
One mixer; Washing probe.

## Features:

① . 37 Sample positions.
② . 28 Reagent positions.
③ . 48 Reaction cuvettes.
④ . 200 Tests per hour.
⑤ . Probe with anti-collision function, liquid level dectection function.

**Reaction Tray**
37±0.2℃,
real-time monitor.

**Reagent Tray**
Refrigerated tray with
independent switch.

**Sample Needle**
Liquid level sensor function.
Anti-collision function.Reagent
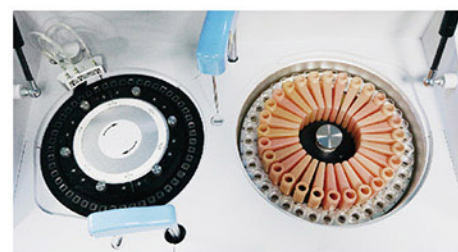volume real-time detection.
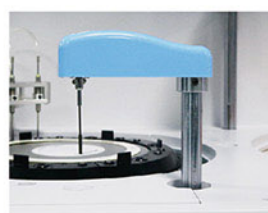
**Mixer Probe**
Teflon coating to avoid
cross contamination.

**Washing Probe**
Independent 3 -step
washing system.

**LAN Port
Access**

| Model | | BK-200 |
|---|---|---|
| Overall Performance | Throughput | 200 Tests/hour |
| | Analysis Method | End-point, Fixed-time, Rate(Kinetic) |
| | Certificates | CE, FDA, ISO9001, ISO13485 |
| Sample & Reagent System | Sample Positions | 37 sample positions |
| | Reagent Positions | 28 reagent positions |
| | Sample Volume | 2~70μl |
| | Reagent Volume | 20~350μl |
| | Probe | Teflon coating, with anti-collision function, liquid level detection function |
| | Probe Washing | Automatic washing interior and exterior |
| | Reagent Cooling | Refrigerated tray with independent switch |
| Reaction System | Temperature Control | 37±0.2℃ |
| | Cuvettes | 48 reusable cuvettes, optical length 6mm |
| | Mixer Probe | Independent stirring |
| | Washing | Automatic cuvettes washing |
| | STAT Function | YES |
| Optical System | Light Source | 6V/10W halogen lamp |
| | Spectrophotometry | Post-spectral spectrophotometry |
| | Wavelength | 340, 405, 450, 480, 505, 546, 570, 600, 630, 700, 750, 800nm |
| | Absorbance | 0~3.0Abs |
| Calibration & QC | Calibration | Linear: K factor, 1-point, 2-point and multipoint linear<br>Non-Linear: Spline, Polygon, Index, Ogarithm, Logit-4P, Logit-5P |
| | Quality Control | Real-time QC, Westgard multi rule, Cumulative sum check, Twin Plot(2D) |
| Data Management | Software | Windows 7/8/10, 32 or 64 bit |
| | LIS System | Bi-direction, support HL7 protocol |
| | Interface | LAN port access |
| | Printer | External optional, multiple reporting mode available |
| Working Conditions | Power Supply | AC220V±10%, 50/60Hz, 110V±10%, 60Hz, 300W |
| | Temperature | 15~30℃ |
| | Water Consumption | Deionized water: ＜5L/H |
| | Humidity | 40%~85% |
| Size & Weight | External Size (W*D*H) | 625*425*460mm |
| | Net Weight | 36kg |
| | Package Size (W*D*H) | 728*530*884mm |
| | Gross Weight | 55kg |

# 200T/H Automatic Chemistry Analyzer
# BK-280 (Previous BK-200)

**Parameters:**

### Features:

①. 49 Sample positions.

②. 56 Reagent positions.

③. 120 Reaction cuvettes.

④. 200 tests per hour.

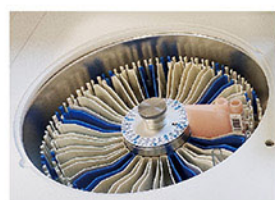⑤. Probe with anti-collision function,

liquid level dectection function.

**Reaction Tray**
37±0.2°C,
real-time monitor.

**Reagent Tray**
2~8°C cooling
for 24 hours.

**Software**
User-friendly
software.

**Mixer Probe**
Teflon coating to avoid
cross contamination.

**Sample Needle**
Liquid level sensor function.
Anti-collision function.Reagent
volume real-time detection.

**Washing Probe**
Independent 5-step
washing system.

| Model | | BK-280 |
|---|---|---|
| Overall Performance | Throughput | 200 Tests/hour |
| | Analysis Method | End-point, Fixed-time, Rate(Kinetic) |
| | Certificates | CE, FDA, ISO9001, ISO13485 |
| Sample & Reagent System | Sample Positions | 49 sample positions |
| | Reagent Positions | 56 reagent positions |
| | Sample Volume | 2~70µl |
| | Reagent Volume | 20~350µl |
| | Probe | Teflon coating, with anti-collision function, liquid level detection function |
| | Probe Washing | Automatic washing interior and exterior |
| | Reagent Cooling | Refrigerated tray with independent switch |
| Reaction System | Temperature Control | 37±0.2°C |
| | Cuvettes | 120 reusable cuvettes, optical length 6mm |
| | Mixer Probe | Independent stirring |
| | Washing | Automatic cuvettes washing |
| | STAT function | YES |
| Optical System | Light Source | 12V/20W halogen lamp |
| | Spectrophotometry | Post-spectral spectrophotometry |
| | Wavelength | 340, 405, 450, 480, 505, 546, 570, 600, 630, 700, 750, 800nm |
| | Absorbance | 0~3.0Abs |
| Calibration & QC | Calibration | Linear: K factor, 1-point, 2-point and multipoint linear |
| | | Non-Linear: Spline, Polygon, Index, Ogarithm, Logit-4P, Logit-5P |
| | Quality Control | Real-time QC, Westgard multi rule, Cumulative sum check, Twin Plot(2D) |
| Data Management | Software | Windows 7/8/10, 32 or 64 bit |
| | LIS System | Bi-direction, support HL7 protocol |
| | Interface | LAN port access |
| | Printer | External optional, multiple reporting mode available |
| Working Conditions | Power Supply | AC220V±10% 50/60Hz, 110V±10% 60Hz, 300W |
| | Temperature | 15~30°C |
| | Water Consumption | Deionized water: 5L/H |
| | Humidity | 40%~85% |
| Size & Weight | External Size (W*D*H) | 950*603*510mm |
| | Net Weight | 65kg |
| | Package Size (W*D*H) | 1085*700*1012mm |
| | Gross Weight | 140kg |

# 400T/H Automatic Chemistry Analyzer
# BK-400

**Parameters:**

## Features:

①. 400 Tests per hour.

②. 90 Reagent positions.

③. 120 Reaction cuvettes.

④. Built-in sample barcode system optional.

⑤. 60 Sample positions (90 sample positions optional).

⑥. Probe with anti-collision function, liquid level dectection function.

| Model | | BK-400 |
|---|---|---|
| Overall Performance | Throughput | 400 Tests/hour |
| | Analysis Method | End-point, Fixed-time, Rate(Kinetic) |
| | Certificates | CE, FDA, ISO9001, ISO13485 |
| Sample & Reagent System | Sample Positions | 60 or 90 sample positions, built-in barcode system available |
| | Reagent Positions | 90 refrigerated reagent positions |
| | Sample Volume | 1~70µl |
| | Reagent Volume | 10~350µl |
| | Probe | Teflon coating, with anti-collision function, liquid level detection function |
| | Probe Washing | Automatic washing interior and exterior |
| | Reagent Cooling | 2~8°C |
| Reaction System | Temperature Control | 37±0.1°C, real-time monitoring |
| | Cuvettes | 120 reusable cuvettes, optical length 6mm |
| | Mixer Probe | Independent stirring |
| | Washing | Automatic cuvettes washing |
| | STAT Function | YES |
| Optical System | Light Source | 12V/20W halogen-tungsten lamp |
| | Spectrophotometry | Post-spectral spectrophotometry |
| | Wavelength | 340, 405, 450, 480, 505, 546, 570, 600, 630, 700, 750, 800nm |
| | Absorbance | 0~3.5Abs |
| Calibration & QC | Calibration | Linear: K factor, 1-point, 2-point and multipoint linear<br>Non-Linear: Spline, Polygon, Index, Ogarithm, Logit-4P, Logit-5P |
| | Quality Control | Real-time QC, Westgard multi rule, Cumulative Sum Check, Twin Plot(2D) |
| Data Management | Software | Windows 7/8/10, 32 or 64 bit |
| | LIS System | Bi-direction, support HL7 protocol |
| | Interface | TCP/IP Network interface |
| | Printer | External optional, multiple reporting mode available |
| Working Conditions | Power Supply | 220V±10% 50/60Hz, 110V±10% 60Hz, 500VA |
| | Temperature | 15~30°C |
| | Water Consumption | Deionized water:<12 L/h |
| | Humidity | 40%~85% |
| Size & Weight | External Size (W*D*H) | 1170*775*1145mm |
| | Net Weight | 190kg |
| | Package Size (W*D*H) | 1348*928*1377mm |
| | Gross Weight | 257kg |

**Reaction Tray**
37±0.1°C, real-time monitor.

**Reagent Tray**
2~8°C cooling for 24 hours.

**Software**
User-friendly software.

**Mixer Probe**
Teflon coating to avoid cross contamination.

**Sample Probe**
Liquid level sensor function.
Anti-collision function.
Reagent volume real-time detection.

**Washing Probe**
Independent 7-step washing system.

# 600T/H Automatic Chemistry Analyzer
# BK-600
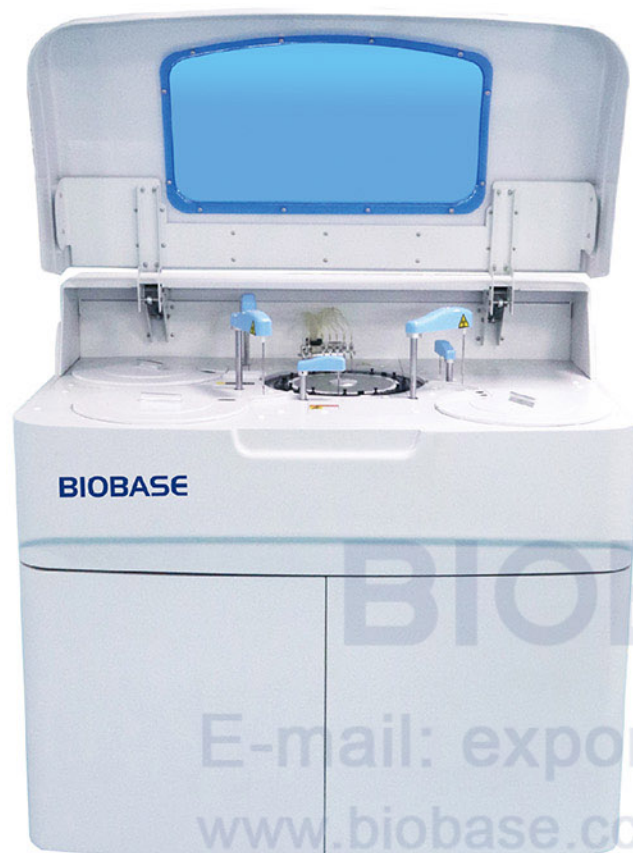
### Features:

①. 600 Tests per hour.

②. 120 Reaction cuvettes.

③. 180 Refrigerated reagent positions.

⑤. Built-in sample barcode system optional.

⑥. 90 Sample positions.(120 sample positions optional).

⑦. Probe with anti-collision function,

liquid level dectection function.

**Reaction Tray**
37±0.1°C,
real-time monitor.

**Reagent Tray**
2~8°C cooling
for 24 hours.

**Software**
User-friendly
software.

**Mixer Probe**
Teflon coating to avoid
cross contamination.

**Sample Probe**
Liquid level sensor function.
Anti-collision function.
Reagent volume real-time
detection.

**Washing Probe**
Independent 7-step
washing system.

### Parameters:

| Model | | BK-600 |
|---|---|---|
| **Overall Performance** | Throughput | 600 Tests/hour |
| | Analysis Method | End-point, Fixed-time, Rate(Kinetic) |
| | Certificates | CE, FDA, ISO9001, ISO13485 |
| **Sample & Reagent System** | Sample Positions | 90 sample positions, built-in barcode system available |
| | Reagent Positions | 180 refrigerated reagent positions ( R1: 45 & R2: 45) |
| | Sample Volume | 1~70µl |
| | Reagent Volume | 10~350µl |
| | Probe | Teflon coating, with anti-collision function, liquid level detection function |
| | Probe Washing | Automatic washing interior and exterior |
| | Reagent Cooling | 2~8°C |
| **Reaction System** | Temperature Control | 37±0.1°C, real-time monitoring |
| | Cuvettes | 120 reusable cuvettes, optical length 6mm |
| | Mixer Probe | Independent stirring |
| | Washing | Automatic cuvettes washing |
| | STAT Function | YES |
| **Optical System** | Light Source | 12V/20W halogen lamp |
| | Spectrophotometry | Post-spectral spectrophotometry |
| | Wavelength | 340, 405, 450, 480, 505, 546, 570, 600, 630, 700, 750, 800nm |
| | Absorbance | 0~3.5Abs |
| **Calibration & QC** | Calibration | 1-point, 2-point and multi-point, factor, Spline, Logit-4P, Logit-5P |
| | Quality Control | Inserting quality control at random |
| **Data Management** | Software | Windows 7/8/10 |
| | LIS System | Available |
| | Interface | TCP/IP Network interface |
| | Printer | External optional, multiple reporting mode available |
| **Working Conditions** | Power Supply | 220V±10% 50/60Hz, 110V±10% 60Hz, 800VA |
| | Temperature | 15~30°C |
| | Water Consumption | Deionized water:<15 L/h |
| | Humidity | 40%~85% |
| **Size & Weight** | External Size (W*D*H) | 1170*775*1145mm |
| | Net Weight | 216kg |
| | Package Size (W*D*H) | 1348*928*1377mm |
| | Gross Weight | 280kg |
| | Accessory Package Size | 728*598*651mm |
| | Accessory Gross Weight | 70kg |

# 800T/H Automatic Chemistry Analyzer
# BK-1200

## Features:

① 150 Sample positions.

② 160 Reaction cuvettes.

③ 180 Refrigerated reagent positions.

④ Optical filter/fiber bragg grating selectable.

⑤ 800 Tests per hour (1200 Tests with ISE module).

⑥ Built-in sample barcode system optional.

⑦ Probe with anti-collision function, liquid level dectection function.

**Reaction Tray**
37±0.1°C, water bath

**Reagent Tray**
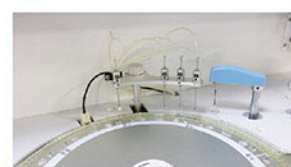2~8°C cooling for 24 hours

**Software**
User-friendly software

**Mixer Probe**
Dual mixer, auto frequency adjustment

**Sample Probe**
Liquid level sensor function Anti collision function Reagent volume real-time detection

**Washing Probe**
Dual design, high efficiency

## Parameters:

| Model | | BK-1200 |
|---|---|---|
| Overall Performance | Throughput | 800 Tests/hour, 1200Tests/hour with ISE(Optional) |
| | Analysis Method | End-point, Fixed-time, Rate(Kinetic) |
| | Certificates | CE, FDA, ISO9001, ISO13485 |
| Sample & Reagent System | Sample Positions | 150 sample positions |
| | Reagent Positions | 180 reagent positions |
| | Sample Volume | 1~70µl |
| | Reagent Volume | 10~350µl |
| | Probe | Teflon coating, with anti-collision function, liquid level detection function |
| | Probe Washing | Automatic washing interior and exterior |
| | Reagent Cooling | Refrigerated tray with independent switch |
| Reaction System | Temperature Control | Water bath, 37±0.1°C, real-time monitoring |
| | Cuvettes | 160 reusable cuvettes, optical length 6mm |
| | Mixer Probe | Independent stirring |
| | Washing | Automatic cuvettes washing |
| | STAT Function | YES |
| Optical System | Light Source | 12V/20W halogen lamp/fiber bragg grating optional |
| | Spectrophotometry | Post-spectral spectrophotometry |
| | Wavelength | 12 wavelengths from 340~800nm |
| | Absorbance | 0~3.5Abs |
| Calibration & QC | Calibration | Linear: K factor, 1-point, 2-point and multipoint linear<br>Non-Linear: Spline, Polygon, Index, Ogarithm, Logit-4P, Logit-5P |
| | Quality Control | Real-time QC, Westgard multi rule, Cumulative Sum Check, Twin Plot(2D) |
| Data Management | Software | Windows 7/8/10, 32 or 64 bit |
| | LIS System | Bi-direction, support HL7 protocol |
| | Interface | LAN port access |
| | Printer | External optional, multiple reporting mode available |
| Working Conditions | Power Supply | AC220V±10% 50/60Hz, 110V±10% 60Hz, 1500W |
| | Temperature | 15~30°C （±2°C） |
| | Water Consumption | Deionized water: ＜25L/H |
| | Humidity | 40%~85% |
| Size & Weight | External Size (W*D*H) | 1360*795*1155mm |
| | Net Weight | 290kg |
| | Package Size (W*D*H) | 1718*958*1427mm |
| | Gross Weight | 400kg |

# Semi-auto Chemistry Analyzer
# BIOBASE-Silver

**Parameters:**

| Model | BIOBASE-Silver |
|---|---|
| Reading cuvette | Quartz cuvette; Both through cell and direct reading cuvette |
| Incubating positions | 20 incubating positions |
| Photometric System | Light source: 6V, 10W long life halogen lamp |
| | Filters: 340/405/450/510/546/578/630nm, 2 more open filter positions |
| | Wavelength accuracy: ±2nm |
| Measuring System | Measuring range: 0~3.500O.D. |
| | Photometric linearity: ±2% from 0 to 2.500 O.D. |
| | Photometric accuracy: ±2% from 0 to 2.500 O.D. |
| | Drift<0.005 O.D. |
| Incubator Temperature Control | R.T. 25℃, 30℃, 37℃ |
| | Precision: ±0.1℃ |
| Display | Touch Screen |
| Printer | Built-in thermal printer |
| Interface | RS-232, USB |
| Power Supply | AC110/220V±10%, 60/50Hz |
| External Size(W*D*H) | 400*380*200mm |
| Packing Size(W*D*H) | 500*530*350mm |
| Gross Weight | 12kg |

**Features:**

①. Easy operation by one button.

②. End point, kinetic, fixed time, rate, etc.

③. Filter wavelength: 340/405/450/510/546/578/630nm, 2 more open filter positions, others on request.

④. With 20 incubating positions.

⑤. Large Memory to store 144 test programs and 5600 testing results.

⑥. Excellent Q.C function, Q.C chart can be stored, displayed and printed.

⑦. 37℃ temperature in flow cell and incubating.

⑧. Real time graph can be displayed and printed.

# Clinical Chemistry Reagents

## 118 Item Reagent Kits：



Class 100000 Clean Workshop          Chemistry Reagent          Used in BIOBASE or other brands Chemistry analyzer

①. Pancreas: α-AMY, LPS.

②. Pepsinogen: PG I, PG II.

③. Rheumatism: RF.

④. Hemagglutination: Fb, Fn.

⑤. Glycometabolism: GLU, GSP, HbA1c, D3H, LAC.

⑥. Blood Gas Electrolyte: Cl, Ca, P, Mg, $CO_2$, Na, K, Cu, Fe, Zn, etc.

⑦. Blood Lipid: CHO, TG, HDL-C, LDL-C, APOA1, APOB, HCY, PLIP, Lp(a), APOE, ApoA2, ApoC2.

⑧. Myocardium Zymogram: LDH, CK-NAC, CK-MB, MB, ACE, LDH I, TnI, MA.

⑨. Kidney Function: UREA, CREA, UA, MALB, CYS-C, BMG, NAG, UTP, α1-MG, RBP.

⑩. Special Protein: ASO, CRP, PALB, TRF, G6PD, DD, C3, C4, IgA, IgM, IgG, HS-CRP, UIBC, Fet, IgE.

⑪. Liver Function: ALP, γ-GT, ALT, AST, TP, ALB, TBIL, DBIL, CHE, TBA, AFU, 5'-NT, AMO, AFP, AMM, LAP, ALC, GLDH, AAT.

| Small package | 24ml~40ml |
| --- | --- |
| Medium package | 96ml~160ml |
| Big package | 480ml~560ml |

Applicable to different brand chemistry analyzer

BIOBASE, Hitachi, Olympus, Roche, Beckman, Toshiba, Shimadzu, Abbott, Sysmex, Mindray, etc.
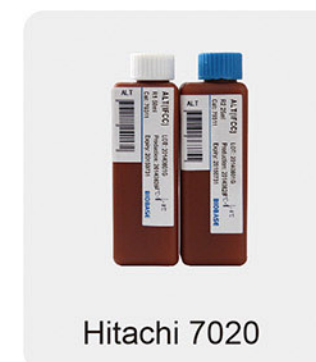
## OEM Services Available：

Bulk package: 500ML, 1L, 2L, 5L, 10L, 25L, 50L, 100L
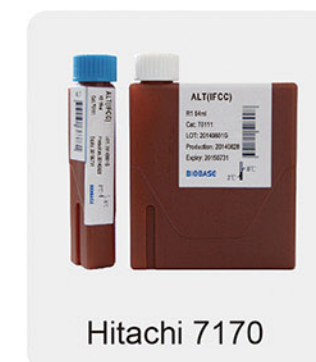
# Applicable Models
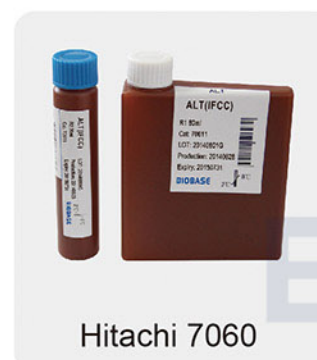


BIOBASE          Hitachi 7020          Hitachi 7170

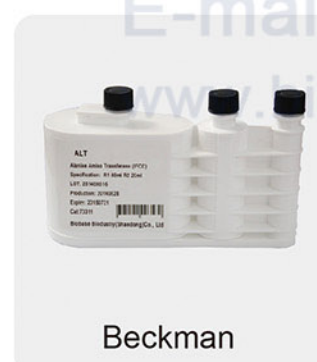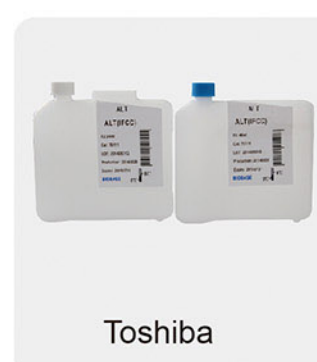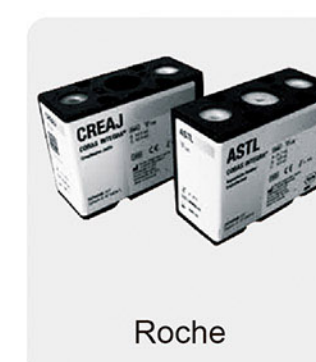Hitachi 7060          Olympus          Mindray

Beckman          Glamour          Neusoft

Toshiba          Abbott          Roche

# Automatic Chemiluminescence Immunoassay System BKI1100/BKI2200

**BKI1100**

**BKI2200**

## Introduction:

The chemiluminescence immunoassay system uses magnetic particle separation technology, which uses magnetic

particles as antibody carriers, which can be evenly distributed in the liquid phase reaction system, with faster reaction speed

and higher efficiency. Using enzymatic chemiluminescence method, the light signal is more stable.

A new generation of enzymatic substrates, with higher sensitivity and faster luminescence.

Compared with the international brands, the chemiluminescence immunoassay reagents have good consistency,

the coincidence rate can reach more than 95%.
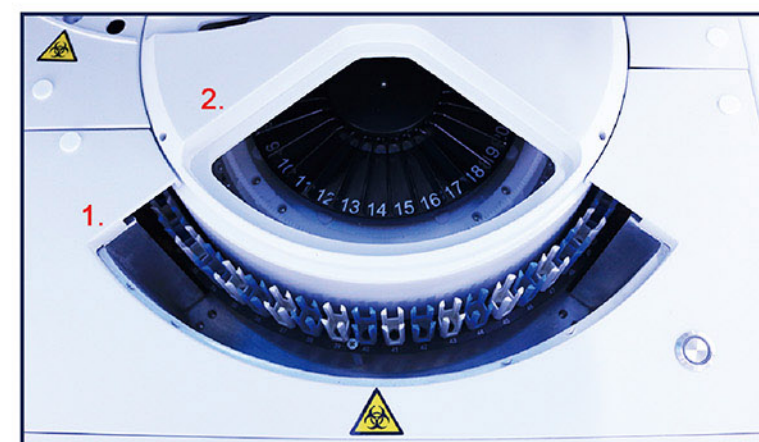
### 1. Sample Tray:

* Disc design, up to 60 samples loading capacity

  per batch.

* The position of sample, standard product and quality

  control positions can be edited.

* Support emergency function.

### 2. Reagent Tray:

* Patented semiconductor refrigeration technology.

* Up to 30 reagent position on board with refrigeration

  at 2-8℃.

* Up to 30 items can be tested at the same time.
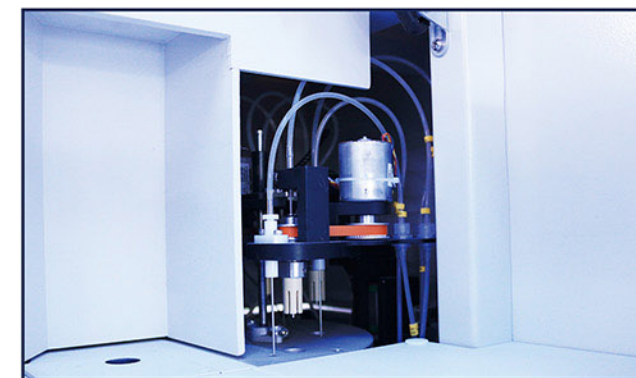
### Washing and Mixing Module:

* Three-level cleaning mode, higher cleaning efficiency.

* Non-contact mixing to avoid cross-contamination.
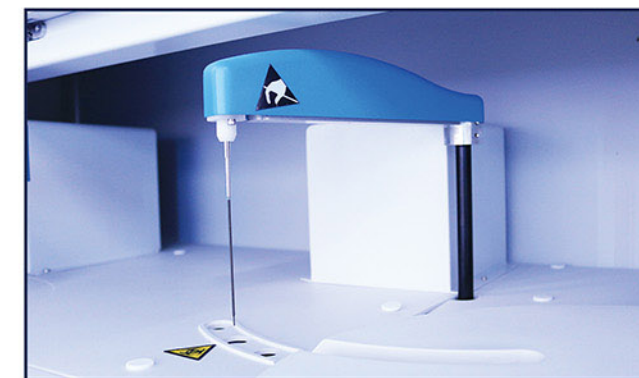
### Sample Probe:

* Excellent rinsing system make carry-over ≤$10^{-5}$.

* Liquid-level and blood clot detection system.

* Intelligent anti-collision function.

* Sampling volume: 15ul-100ul.

### RV Loading Module:

* Independent reaction vessel.

* Up to 1200 pcs per batch with continues loading.

* Automatically supply reaction vessel.

* Intelligently detect the amount of RV.
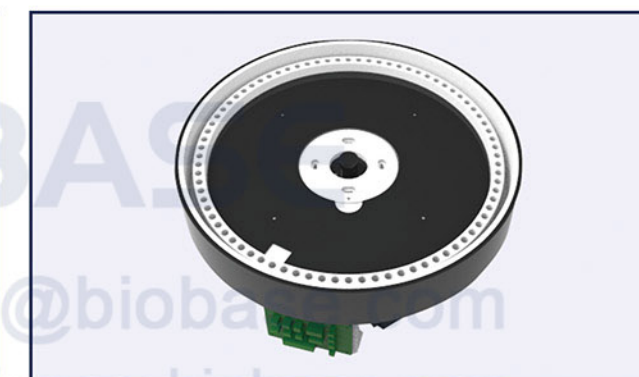
### Incubation Plate:

* 80 incubation positions.

* Constant 37°C incubation.
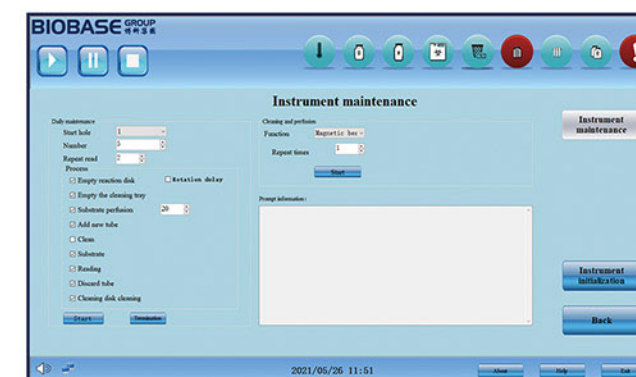
### Instrument Software:

* Flexible sample test mode: STAT function, automatic

  dilution, reset function, continuous loading.

* Reagent management: the remaining amount,

  calibration validity, expiry date management.

* Consumables management: continuous monitoring

  and low-level warning.

* Result management: store search, print and statistics,

  automatic unit conversion function.

* LIS/HIS connection.

* Auto daily maintenance.

**Parameters:**

| Model | BKI1100 | BKI2200 |
|---|---|---|
| Throughput | 80T/H | 120T/H |
| Principle | Magnetic particle enzymatic chemiluminescence | |
| Modes of Operation | Random, Batch and STAT | |
| Separation Method | Magnetic separation technology | |
| Sample Positions | 60 (Each position could be used as an emergency position) | |
| Reagent Positions | 30 pcs (2-8℃ refrigeration) | |
| Incubation Positions | 50 | 80 |
| Time to 1st Result | 18 Minutes | |
| Sample Volume | 15-100ul | |
| Detection Precision | CV≤5% | |
| Carry-over Rate | ≤10-5 | |
| Correlation Coefficient | r≥0.99 | |
| Calibration Stability | 28 Days | |
| Calibration Type | 6/7-point calibration | |
| Software System | Windows 7/8/10, 32 or 64 bit | |
| | Bi-direction, support HL7 protocol | |
| | Intuitive User Interface, Intelligent Data Management | |
| Interface | TCP/IP Network interface | |
| Other Function | Liquid level detection | |
| | Anti-collision function | |
| | Sample barcode scanning | |
| | Reagent radio frequency identification | |
| | Intelligent alarm prompt | |
| Power Supply | AC110/220V, 50/60Hz | |
| External Size (W*D*H) | 1120*735*513mm | 1305*770*1150mm |
| Net Weight | 130Kg | 220Kg |
| Package Size (WD*H) | 1303*873*854mm | 1608*898*1534mm |
| Gross Weight | 180kg | 294kg |

# Chemiluminescence Immunoassay Reagent



**Parameters:**

| | |
|---|---|
| Thyroid | TSH; TT4; TT3; FT4; FT3; TgAb; TPOAb; TG; Anti-TSHR; CT |
| Anemia | FERRITIN; VB12; FA |
| Liver Fibrosis | CIV; LN; HA; PIIINP |
| Hypertension | ALD; ACTH; Cortisol; Renin |
| Fertility | β-HCG; E2; P; T; PRL; FSH; LH; DHEA-S; SHBG; AMH |
| Growth | GH |
| Bone Metabolism | BGP; 25-OH-Vit-D; iPTH; BGP |
| Tumor Marker | CA125; CA15-3; CA199; AFP; CEA; t-PSA; f-PSA |
| Pepsinogen | PGI; PGII |
| Kidney Function | β2-MG |
| Rheumatism | Anti-CCP |
| Diabetes | C-P; INS |
| Cardiac Marker | cTnl; CK-MB; MYO; NT-proBNP |
| Inflammation | PCT; IL-6 |

# Auto ELISA Processor

## 01

### Sample Module

With hydrophobic membrane treatment precision probe and automatic washing system, ensure adding volume accurately and preventing cross contamination effectively.

## 02

### Sample & Reagent & Dilution Rack Module

Using original sample tube and reagent bottles directly, preventing cross contamination effectively.
Onboard large capacity and optional programmable dilution module.
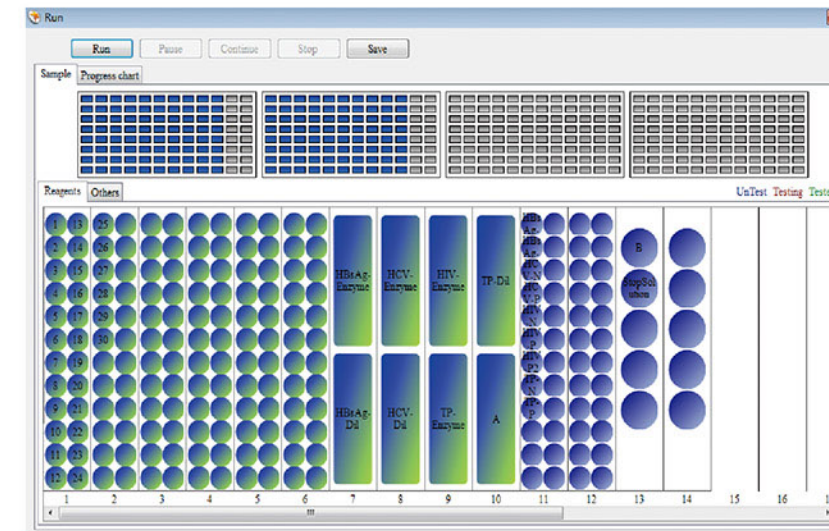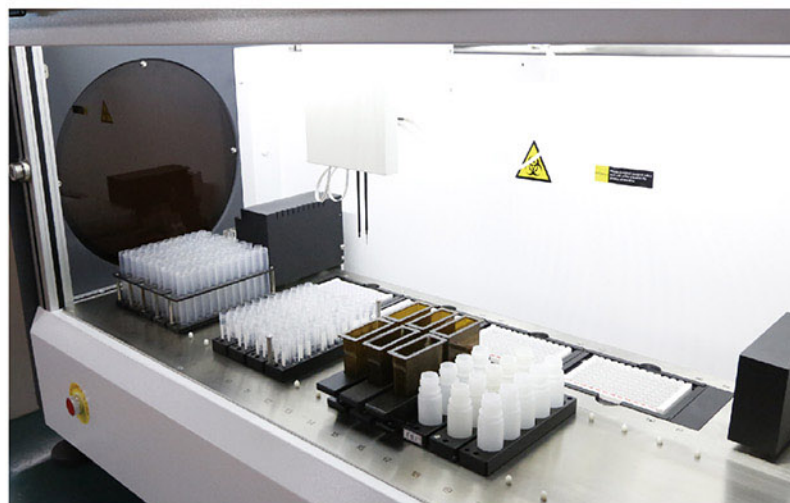
## 03

### Software Module

User-friendly Windows system, easy and simple to operate.
LIS (Laboratory information system) is available.

## 04

### Microplate Reader & Washer Module

Washing probe is adjusted automatically to ensure washing efficiently without residual, having unique integrative washing and reading module system.
Reading unit is composed of high precision optics to ensure the accuracy and stability of testing results.

## 05 Testing Range:

①. TORCH SERIES                    Toxo, RV, CMV, HSV etc.

②. HEPATITIS SERIES            HAV, HBV, HCV, HDV, HEV etc.

③. VENEREAL SERIES             HIV, TP, MP, CT etc.

④. THYROID AUTOIMMUNITY SERIES    T3, T4, FT3, TSH etc.

⑤. ENDOCRINE SERIES            E2, E3, LH, FSH, HCG, Pro, PRL etc.

⑥. TUMOR MARKER SERIES       CEA, AFP, PSA, F-PSA, CAL9-9, CAL 25, CA15-3, CA242.

# Auto ELISA Processor
# BIOBASE 1000

**Parameters:**

| Model | | BIOBASE 1000 |
|---|---|---|
| **Sample Unit** | Sample Racks | Standard 192 sample position (expandable, up to 384) |
| | Pipetting | 10~1000µl |
| | Dispensing System | 1 aspirating and dispensing probe (X-Y-Z movement) |
| **Reagent Unit** | Reagent Racks | Universal reagent position : standard 6 universal reagent positions (expandable, up to 32);Original reagent bottle: Standard 20 reagent bottles position (expandable, up to 80) |
| | Pipetting Range | 10~1000µl, 1µl stepping |
| | Pipetting Precision | (100µl) CV≤0.5% |
| | Dispensing Time | 5 minutes to whole 96 well microplates |
| **Incubation Unit** | Incubation | 2 independent Incubators |
| | Temperature Range | RT to 45 °C |
| | Temperature Accuracy | ±0.5°C |
| **Washing Unit** | Washing Probes | Two line 8-nozzle manifolds |
| | Wash Containers | 2 wash buffers 2L, 1 distilled water, 1 waste water |
| | Washing Residual | ≤2µl |
| **Reading Unit** | Reading Channels | 8 independent photometric channels, mono and dichromatic reading |
| | Absorbance | 0.0~3.0 OD |
| | Spectral Range | 400~700nm |
| | Optical Filters | 2 standard filters (450,630nm); 2 more on request (405nm/450nm/492nm/630nm) |
| **Data Management** | Software | Windows 7 |
| | LIS System | Bi-direction, support HL7 protocol |
| | Results | Absorbance and results reviewable by software |
| | Printer | External optional |
| **Working Conditions** | Power Supply | AC220V±10% 50/60Hz; 110V±10% 60H, 400W |
| | Temperature | 10~30°C |
| | Humidity | 30%~80% |
| **Size & Weight** | External Size (W*D*H) | 933*685*860mm |
| | Net Weight | 130kg |
| | Package Size(W*D*H) | 1085*840*1318mm |
| | Gross Weight | 180kg |

## Features:

①. 1 robotic arm, 1 pipetting probe (10~1000µl).

②. 2 unit 96 well microplates (independent incubating).

③. 1 unit reader& washer (auto reading and washing).

**Software Module**

User-friendly Windows system;
LIS system available.

**Sample Module**

Hitech teflon coating probe to prevent cross contamination.

**Sample & Reagent & Dilution Rack Module**

Original sample tubes available;
Rack positions programmable.

**Microplate Reader & Washer Module**

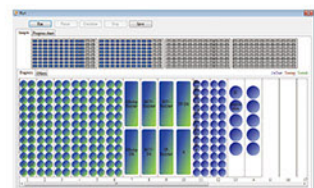Modularized automatic control reading and washing system.

# Auto ELISA Processor
# BIOBASE 2000

**Parameters:**

| Model | | BIOBASE 2000 |
|---|---|---|
| **Sample Unit** | Sample Racks | 552 sample positions (tubes 13mm) |
| | Pipetting | 8~1000μl |
| | Dispensing System | 2 aspirating and dispensing probe (X-Y-Z movement) |
| **Reagent Unit** | Reagent Position | 23 reagent racks, editable |
| | Pipetting Range | 8~1000μl, 1μl stepping |
| | Pipetting Precision | (100μl)CV≤0.5% |
| **Washing Unit** | Dispensing Time | 4 minutes to whole 96 well microplates |
| | Washing Probes | Two line 8-nozzle manifolds |
| | Wash Containers | Cleaning fluid (15L), waste water (25L), Buffer 1 (5L), Buffer 2 (2L), Buffer 3 (2L), Buffer 4 (2L), with liquid level-sensing, liquid shortage and full alarm |
| | Waste Containers | 25L with waste full sensor |
| | Washing Residual | < 2μl |
| **Reading Unit** | Reading Channels | 8 independent photometric channels, mono and dichromatic reading |
| | Absorbance | 0.0~3.0 OD |
| | Spectral Range | 400~700nm |
| | Optical Filters | 2 standard filters (450,630nm); 2 more on request (405nm/450nm/492nm/630nm) |
| | Reading Accuracy | ±1% from 0~1.5OD, ±2% from 1.5~3.0 OD |
| **Incubation Unit** | Incubators | 4 independent units |
| | Temperature Range | RT to 45°C |
| | Temperature Accuracy | ±0.5°C |
| **Data Management** | Software System | Windows 7 |
| | LIS System | Bi-direction, support HL7 protocol |
| | Results | Absorbance and results reviewable by software |
| | Printer | External optional |
| **Working Conditions** | Power Supply | AC220V±10% 50/60Hz; 110V±10% 60Hz, 400W |
| | Temperature | 10~30°C |
| | Humidity | 30%~80% |
| **Size & Weight** | External Size(W*D*H) | 1235*710*880mm |
| | Net Weight | 146kg |
| | Package Size(W*D*H) | 1380*860*1435mm |
| | Gross Weight | 220kg |

## Features:

①. 1 robotic arm, 2 pipetting probes (10~1000μl).

②. 4 unit 96 well microplates (independent incubating).

③. 1 unit reader& washer (auto reading and washing).

**Software Module**

User-friendly Windows system; LIS system available.

**Sample Module**

Hitech teflon coating probe to prevent cross contamination.

**Sample & Reagent & Dilution Rack Module**

Original sample tubes available; Rack positions programmable.

**Microplate Reader&Washer Module**

Modularized automatic control reading and washing system.

# Elisa Microplate Reader



**BK-EL10A**       **BK-EL10B**       **BK-EL10C**       **BK-EL10D**

## Features:

①.10.1-inch large touch screen operation.(Except BK-EL10B)

②.High precision and accurate results.

③.Software: Single wavelength and double wavelengths detection methods.

## Parameters:

| Model | BK-EL10A | BK-EL10B | BK-EL10C | BK-EL10D |
|---|---|---|---|---|
| Measurement Channel | Vertical 8 optical channels | | | |
| Plate Type | 96-well microplate | | | |
| Wavelength Range | 400 ~ 750nm | | | 340 ~ 850nm |
| Filter | Standard 4 wavelengths of 405, 450, 492, 630nm(BK-EL10A, BK-EL10B, BK-EL10C) Standard 5 wavelengths of 340, 405, 450, 492, 630nm(BK-EL10D) Optional: Up to 10 wavelengths. | | | |
| Reading Ravnge | 0.000 ~ 3.000Abs | | 0.000 ~ 4.000Abs | 0.000 ~ 4.500Abs |
| Linear Range | 0.000 ~ 3.000Abs | | | 0.000 ~ 3.500Abs |
| Resolution | 0.0001Abs | | | |
| Repeatability | CV≤1.0% | | | CV≤0.2% |
| Stability | ≤±0.005Abs | | ≤±0.003Abs | |
| Sensitivity | ≥0.01 mg/L | | | |
| Channel Difference | ≤0.02Abs | | | |
| Vibration Plate Function | 3 kinds of vibration plate function, adjustable 0~255s(BK-EL10A, BK-EL10B, BK-EL10C) 5 kinds of vibration plate function, adjustable 0~255s(BK-EL10D) | | | |
| Incubation Function | Time Range: 0~60min Temp. Range: RT +4℃~50℃ (Only for BK-EL10D) | | | |
| Power Supply | AC100~240V, 50/60Hz | | | |
| Instrument Size(W*D*H) | 450*320*300mm | 450*320*190mm | 450*320*300mm | 495*340*370mm |
| Package Size(W*D*H) | 540*400*460mm | | 585*425*405mm | 610*440*475mm |
| Net/Gross Weight | 13/15kg | 10/12kg | 11/13kg | 12/14kg |

# Elisa Microplate Washer

## Feature:

①.Microcomputer control, automatically complete the plate washing operation.

②.The liquid level sensing function automatically detects the liquid level, and automatically alarms when the cleaning liquid is insufficient and the waste liquid is overflowing.

③.The user-friendly operating system allows users to customize the plate type, set the number of washes, the amount of wash solution, the way to wash the plate, the suction point, the soaking and shaking time and other parameters.

④.The wash head is self-balancing, has two-point aspiration, and performs bottom flushing.

⑤.2 kinds of Automatic washing,Soaking andShaking, to reduce the interference adsorption during the reaction;  time adjustable.



**BK-9613**



**BK-9622**

## Parameters:

| Model | BK-9622 | BK-9613 |
|---|---|---|
| Cleaning Head | 8 channels and 12 channels | 96 pins, single row controllable |
| Microplate Types | Four kinds, flat bottom, U bottom, V bottom, round bottom | |
| Average Residue | <1μl(per hole) | <0.7μl(per hole) |
| Liquid Suction Time | 0.1~999.9 seconds adjustable, with an interval of 0.1 seconds | |
| Line Flush Time | 1~999 seconds, adjustable | |
| Washing Programs | Up to 200 programs | |
| Display | 7-inch touch display | |
| Liquid Injection Channels | 3 (2 types of lotion and 1 type of distilled water) | |
| Cleaning Needle Position | 6 types (horizontal, left, middle, right, bottom, hole spacing) | |
| Consumption | 80W | 350W |
| Power Supply | AC220V±10%, 50/60Hz; 110±10%, 60Hz | |
| Packing Size(W*D*H): | 720*480*400mm | 740*675*562mm |
| Gross Weight | 20kg | 42kg |

# Microplate Shaker
# BK-MS200

## Descripfion:

BK-MS200 Thermo Shaker for Microplates is with technique of direct brushless DC motor and PID intelligent temperature control. It is mainly used for shaking and cultivation in Elisa plates (96/384 wells), tissue culture plates(24/48/96 wells).

## Features:

①. LCD displays system status and parameters.

②. Stable and reliable operation with high quality switch.

③. Easy to operate with one touch knob.

④. Setup the time within 0~100 hours, instrument will make alarm voice when completing.

⑤. With power recovery, instrument will continue to run when power recovers from outage.

⑥. 12-month warranty.

⑦. The mechanism of the incubator-heated base and cover

## Parameters:

| Model | BK-MS200 |
|---|---|
| Temp. Control Range | RT.+5℃~80℃ |
| Timing Range | 1min ~ 99h59min |
| Temp. Accuracy | ≤±0.5℃ |
| Display Accuracy | 0.1℃ |
| Temp Uniformity | ≤±0.5℃ |
| Shaking Speed | 200-1600rpm |
| Orbit | 3mm |
| Capacity | 2pcs microplates or culture plates |
| Power Supply | 150W |
| Voltage | AC100V~240V 50/60Hz |
| Heating Time | ≤10min (from RT. to 80℃) |
| Dimension | 280×270×140mm |
| Net Weight | 7kg |
| Package Size(W*D*H) | 440*360*260mm |
| Gross Weight | 7.5kg |

# Microplate Shaker
# BK-MS300

## Descripfion:

BK-MS300 Thermo Shaker for Microplates is a multipurpose thermostatic shaker controlled by brushless DC motor and PID intelligent temperature control technology. The PID fuzzy control technology can be accurate to ensure that the temperature control precision and automatically adjust the heating rate, reduce waiting time.

## Features:

①. Easy to set up and use, all information real-time display and showing set up operation, convenient to observe equipment running status.

②. Support standard microplates and deep well plates.

③. Brushless DC motor, low noise, small interference, free maintenance.

④. Automatic preheating function.

⑤. Automatic power recovery function.

⑥. Temperature calibration function.

⑦. Built-in software and hardware over temperature protection device, will use more reliable.

## Parameters:

| Model | BK-MS300 |
|---|---|
| Temp. Setting Range | 0~80℃ |
| Temp. Control Range | RT+5℃~80℃ |
| Timing Range | 1min ~ 99h59min/∞ |
| Temp. Accuracy | ≤±0.5℃ |
| Display Accuracy | 0.1℃ |
| Temp Uniformity | ≤±0.5℃ |
| Shaking Speed | 300~1350rpm |
| Orbit | 3mm |
| Auto Preheating | Yes |
| Auto Resume to Run | Yes |
| Capacity | 4Microplates or deep-well plates |
| Power Supply | 300W |
| Voltage | AC220V or AC110V, 50/60Hz |
| Heating Time | ≤10 min (from 25℃ to 80℃) |
| Dimension | 340*320*200mm |
| Net Weight | 9.5kg |
| Package Size(W*D*H) | 490*450*315mm |
| Gross Weight | 11.5kg |

# Elisa Reagent Kits

## Parameters:

| Product Name | Format | Shelf life(months) | Storage Temperature |
|---|---|---|---|
| Infectious Disease Elisa | | | |
| HAV-Ab | 96T | 12 | 2~8 ℃ |
| HBsAg | 96T | 12 | 2~8 ℃ |
| HBsAb | 96T | 12 | 2~8 ℃ |
| HBeAg | 96T | 12 | 2~8 ℃ |
| HBeAb | 96T | 12 | 2~8 ℃ |
| HBcAb | 96T | 12 | 2~8 ℃ |
| HBcAb-IgM | 96T | 12 | 2~8 ℃ |
| HBsAb Quantitative | 96T | 12 | 2~8 ℃ |
| HBV Pre-S1 Ag | 96T | 12 | 2~8 ℃ |
| HCV Ab | 96T | 12 | 2~8 ℃ |
| HCV-IgM | 96T | 12 | 2~8 ℃ |
| HIV 1+2 Ab | 96T | 12 | 2~8 ℃ |
| HIV 1+2 Ag/Ab | 96T | 12 | 2~8 ℃ |
| Syphilis anti-TP | 96T | 12 | 2~8 ℃ |
| HDV-IgG | 96T | 12 | 2~8 ℃ |
| HDV-IgM | 96T | 12 | 2~8 ℃ |
| HEV-Ab | 96T | 12 | 2~8 ℃ |
| HEV-Ag | 96T | 12 | 2~8 ℃ |
| HTLV 1+2 Ab | 96T | 12 | 2~8 ℃ |
| Fertility Elisa | | | |
| LH | 96T | 12 | 2~8 ℃ |
| B-HCG | 96T | 12 | 2~8 ℃ |
| Testosterone(T) | 96T | 12 | 2~8 ℃ |
| FSH | 96T | 12 | 2~8 ℃ |
| Progesterone(P) | 96T | 12 | 2~8 ℃ |
| Prolactin | 96T | 12 | 2~8 ℃ |
| E2 | 96T | 12 | 2~8 ℃ |

## Parameters:

| Product Name | Format | Shelf life(months) | Storage Temperature |
|---|---|---|---|
| Tumour Elisa | | | |
| FT3 | 96T | 12 | 2~8 ℃ |
| FT4 | 96T | 12 | 2~8 ℃ |
| T3 | 96T | 12 | 2~8 ℃ |
| T4 | 96T | 12 | 2~8 ℃ |
| TSH | 96T | 12 | 2~8 ℃ |
| Insulin(Ins) | 96T | 12 | 2~8 ℃ |
| C-P | 96T | 12 | 2~8 ℃ |
| AFP | 96T | 12 | 2~8 ℃ |
| CEA | 96T | 12 | 2~8 ℃ |
| Ferritin | 96T | 12 | 2~8 ℃ |
| PSA | 96T | 12 | 2~8 ℃ |
| CA50 | 96T | 12 | 2~8 ℃ |
| CA125 | 96T | 12 | 2~8 ℃ |
| CA153 | 96T | 12 | 2~8 ℃ |
| CA199 | 96T | 12 | 2~8 ℃ |
| Torch Elisa | | | |
| CMV (Cytomegalovirus Antibody) IgG | 96T | 12 | 2~8 ℃ |
| CMV (Cytomegalovirus Antibody) IgM | 96T | 12 | 2~8 ℃ |
| RV (Rubella Antibody) IgG | 96T | 12 | 2~8 ℃ |
| RV (Rubella Antibody) IgM | 96T | 12 | 2~8 ℃ |
| TOX (Toxoplasma Antibody) IgG | 96T | 12 | 2~8 ℃ |
| TOX (Toxoplasma Antibody) IgM | 96T | 12 | 2~8 ℃ |
| HSV-I (Herpes Simplex Virus I Antibody) IgM | 96T | 12 | 2~8 ℃ |
| HSV-II (Herpes Simplex Virus II Antibody) IgM | 96T | 12 | 2~8 ℃ |
| Others | | | |
| COX (Coxsackievirus Antibody) IgG | 96T | 12 | 2~8 ℃ |
| COX (Coxsackievirus Antibody) IgM | 96T | 12 | 2~8 ℃ |
| MV (Measles Virus Antibody) IgG | 96T | 12 | 2~8 ℃ |
| MV (Measles Virus Antibody) IgM | 96T | 12 | 2~8 ℃ |
| TB (Mycobacterium Tuberculosis Antibody) IgG | 96T | 12 | 2~8 ℃ |
| TB (Mycobacterium Tuberculosis Antibody) IgM | 96T | 12 | 2~8 ℃ |
| RSV (Respiratory Syncytial Virus Antibody) IgM | 96T | 12 | 2~8 ℃ |
| Mg (Mycoplasma Genitalium Antibody) IgG | 96T | 12 | 2~8 ℃ |
| HPV (Human Papilloma Virus Antibody) IgG | 96T | 12 | 2~8 ℃ |
| ds-DNA (Double-stranded DNA Antibody) IgG | 96T | 12 | 2~8 ℃ |
| ss-DNA (Single-stranded DNA Antibody) IgG | 96T | 12 | 2~8 ℃ |
| ANA (Antinuclear Antibody) IgG | 96T | 12 | 2~8 ℃ |
| Vitamin D (For Research Use Only) | 96T | 12 | 2~8 ℃ |
| Vitamin A (For Research Use Only) | 96T | 12 | 2~8 ℃ |
| Vitamin C (For Research Use Only) | 96T | 12 | 2~8 ℃ |
| Vitamin B12 (For Research Use Only) | 96T | 12 | 2~8 ℃ |

# Automated Sample Processing System
# BK-PR32 & BK-PR48



**BK-PR32**      **BK-PR48**

## Work Process:



Sample → Virus Inactivation → Liquid Transfer → Nucleic Acid Extraction → PCR Mix Preparation → RT-PCR

BK-PR48 Automated Sample Processing System

BK-AutoHS96 Automatic Nucleic Acid Extraction System
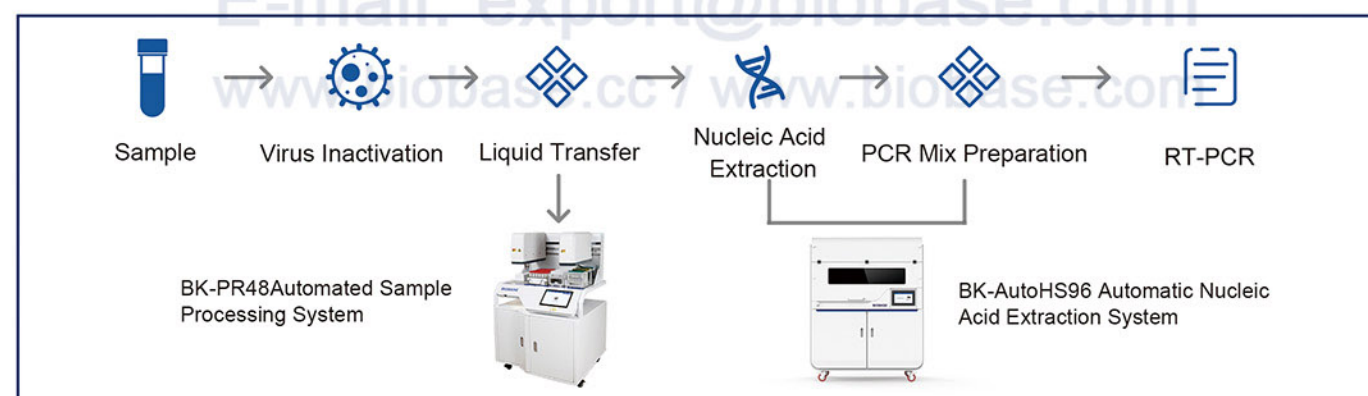
## Introduction:

The Automated Sample Processing System is equipped with an independent HEPA filter system, and the Automated Sample Processing System can be used with a biological safety cabinet.

It can complete lidopening\closing, dispensing, proteinase K\internal control addition, which helps laboratories quickly improve their large-scale nucleic acid detection capabilities.

## Application:

Sample processing for clinical diagnosis, epidemic surveillance, food safety, forensic identification, scientific research, etc., especially for samples of SARS-CoV-2 or other virulent infectious diseases.

## Features:

Safety: Automated Sample Processing System is equipped with high-efficiency filter and built-in UV lamp, and it can be used with a biological safety cabinet, to effectively prevent aerosol pollution.

Efficient: Cooperative processing with dual robotic arms

Convenient: Visual interface operation, easy to operate

Compatibility: Compatible with a variety of pipette tips, deep well plates, sampling tubes. (including blood collection tubes) specifications

Smart: One-key operation, smart dispensation

## Parameters:

| Model | BK-PR32 | BK-PR48 |
|---|---|---|
| Throughput | 1-32 | 1-48 |
| Processing Time | 32 samples/10min | 48 samples/16min |
| Sample Type | Plasma, serum, whole blood, swab solution and other samples | |
| Sample Rack | 1Pcs, 3*12 with locking device (compatible with a variety of sampling tubes) | 1Pcs, 6*8 with locking device (compatible with a variety of sampling tubes) |
| Robot Arm | 1 pcs (Dispensation arm ) | 2 pcs (Dispensation arm and Screw cap arm) |
| Plate Position | 2 pcs (Compatible with I-shaped and square boards) | 3 pcs (Compatible with multi-specification deep-well plates) |
| Tip Position | 3 pcs (Including tip waste box position) | |
| Reagent Rack | 1 pcs (4*2ml centrifuge tube+4*2ml freezing tube+4*5ml freezing tube) | |
| Protective Function | Can be used in a biological safety cabinet External droplet catch tray design With air-tight and anti-drip design | |
| Liquid Detection | Pneumatic liquid level detection principle, intelligent detection of blocked needle | |
| Pipetting Volume | 5-1000ul (1000/50ul Tip) | |
| Pipetting Accuracy | 10ul, CV≤1.5%, Accuracy≤6.0%, 50ul Tip 50ul, CV≤1.0%, Accuracy≤2.0%, 1000ul Tip 100ul, CV≤0.5%, Accuracy≤2.0%,1000ul Tip | |
| Power Supply | 220V,50/60HZ;110V,60HZ | |
| External Size (W*D*H) | 540*637*1113mm | 827*794*1223mm |
| Net Weight | 56kg | 100kg |
| Package Size (W*D*H) | 670*810*1314mm | Main instrument: 925*925*817mm; Base cabinet:1030*995*1045 |
| Gross Weight | 76kg | Main instrument: 115kg; Base cabinet:105kg |

# Nucleic Acid Extractor
## BNP32/BNP48



BNP32      BNP48

## Operation Process:



## Features:

①. 7-Inch touch screen, easy to use, fast response

②. User-defined cracking and elution temperature

③. UV disinfection fuction, time range 1min-24hour

④. Automatic control system, no need connect to computer

⑤. Free programming to meet the needs of different reagent

⑥. Open system, fully automatic, stable results and good repeatability

⑦. Extract rapidly 9~40 minutes , 32/48 samples can be extracted at the same time

## Parameters:

| Model | BNP32 | BNP48 |
|---|---|---|
| Sample Quantity | 32 | 48 |
| Processing Volume | 60μL-1000μL | |
| Sample Volume | 20-500μL | |
| Sample Throughput | 1-32 | 48 |
| Magnetic Bead Recovery | >98% | |
| Extracting the Difference Between Holes | CV≤3% | |
| Heating Temperature | 8 independent heating modules, customize lysis and elution temperature (temperature range) according to your needs | |
| Oscillating Mixing | Low,medium and high three gears are adjustable, and the fluctuation range can be adjusted with the reagent volume | |
| Reagent Type | Magnetic bead open platform | |
| Extraction Time | 8-60 min/round (depending on the reagent used) | |
| Internal Program | 48 groups | 50000 groups |
| Program Management | Powerful program editing capabilities to meet different reagent needs. U disk program import and export can be achieved | |
| Safety Door Design | After the safety door is opened,the program operation will be automatically suspended, and the program can continue to run after the safety door closed | |
| Built-in Air Duct | Yes | Yes |
| Ultraviolet Irradiation | Yes | |
| Package Size(W*D*H) | 580*510*700mm | 700*520*750mm |
| Gross Weight | 51kg | 80kg |

# Nucleic Acid Extractor
# BNP96&BNP96B

**BNP96**

**BNP96B**

## Application:

Automatic nucleic acid extraction and purification system for the extraction of DNA or RNA from a variety of materials, such as whole blood, tissue, throat swab, etc., without centrifugation or filtration operation.

## Features:

①. High purity extraction, easy to operate and fully automated.

②. High throughput, can process 1-96 samples at a time, save time.

③. With professional extraction kit, extraction process optimization.

④. With constant temperature function to ensure the best reaction temperature in the purification process.

⑤. Friendly operation interface, easy to understand, no external computer, no special training.

⑥. Compact appearance, solid material, long design life.

Genetic Screening (E.SNP)  Tissue Typing  Chip Technology  Transgene Screening

Paternity Testing  Forensic Testing  Microbiology Testing  Plant Molecular Biology Research

## Parameters:

| Model | BNP96 | BNP96B |
|---|---|---|
| Screen | 10.1 inch touch | |
| Sample Volume | 20μl-1000μl | 20μl-500μl |
| Sample Capacity | 1-96 | |
| Magnetic Bead Recovery | ≥98% | |
| Extraction Time | Depending on the reagents | |
| Extracting the Difference Between Holes | CV≤3% | |
| Consumption | 500W | |
| Operating Temperature | RT - 120℃ | |
| Product Purity A260/A280 | DNA≥1.7-2.0; RNA≥1.8-2.1 | |
| Shock Mixing | Adjustable Speed | |
| Reagent Type | Open System for Magnetic Bead Method | |
| Program Storage | 48 groups | |
| Safety Door Design | Safety door opened, the program operation will be automatically suspended, avoid cross-contamination | |
| Disinfection Method | UV Light, Aerosol adsorption | |
| Power Supply | AC100V-240V 50Hz/60Hz | |
| External Size(W*D"H) | 770*530*540mm | 770*502*540mm |
| Package Size(W*D"H) | 910*670*780mm | |
| Gross Weight | 95kg | 86kg |

Remark: For the UV lamp can be only 110V or 220V, pls. confirm the voltage before order.

# Automatic Nucleic Acid Extraction System
# BK-HS32



**Parameters:**

| Model | BK-HS32 |
|---|---|
| Extraction Method | Magnetic Beads |
| Sample Capacity | 32 |
| Processing Volume | 20~1000μl |
| Extraction Time | 15~60min |
| Magnetic Bead Recovery | ≥98% |
| Extraction Difference Between Wells | ＜3% |
| Magnetic Rod Flux | 4500Gs |
| Temperature Range | Adjustable heating function, RT-100 °C |
| Oscillating Mixing | Vertical Mixing, low, medium, high three gears adjustable |
| Module Station | 2 |
| Protection Function | Star up self-chekcing, power off protection, high temperature alarm, over temperature protection, motor protection |
| Disinfection Method | 8W UV Lamp |
| Illuminating Lamp | 3.4W LED Lamp |
| Operation Interface | 10.1 inch capacitive touch screen / Windows system |
| Barcode Scanning Function | Optional external barcode sanner |
| Project Storage | >1000 |
| Interface | 2 USB port, optional LAN port |
| Contamination Control | Class II HEPA filter can effectively filter the internal aerosol and prevent cross contamination |
| IAP Function | Firmware can be updated online at any time |
| Power Supply | AC100~240V 50Hz/60Hz |
| External Size(W*D*H) | 450*440*532mm |
| Package Size(W*D*H) | 538*538*750mm |
| Gross Weight | 37kg |

**Features:**

①. Friendly user interface: Smart & Intelligent display. With 10.1 inch LCD touch screen, Windows operating system.

②. Zero Aerosol Contamination High efficiency HEPA filter and Auto safety door protection function, effectively prevent aerosol contamination. HEPA filter and UV lamp replacement alarm functions.

③. UV Sterilization Lamp With manual or set automatic opening time UV lamp, sterilizing the operation area easily and effectively.
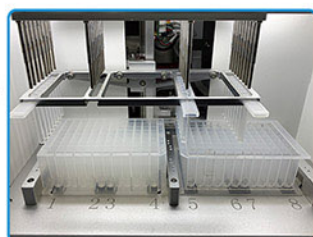
④. Integrated Shaking & Heating Module Mix deep wells while heating, saving extraction time.

⑤. Concave design heating belt fitsthe deep hole tube, ensure rapid and uniform temperature rise, improve the splitting and elution efficiency.

# Automatic Nucleic Acid Extraction System BK-HS96



## Application:

BK-HS96 is a high throughput, high sensitivity automatically extracted nucleic acid purification equipment, matching nucleic acid extraction kits is used to automatically complete the extraction of sample nucleic acid, flexible, stable result, low cost, equipped with efficient filtration device and safety gate design, it can effectively avoid cross infection and ensure the quality of nucleic acid extraction., guarantee the quality of nucleic acid.
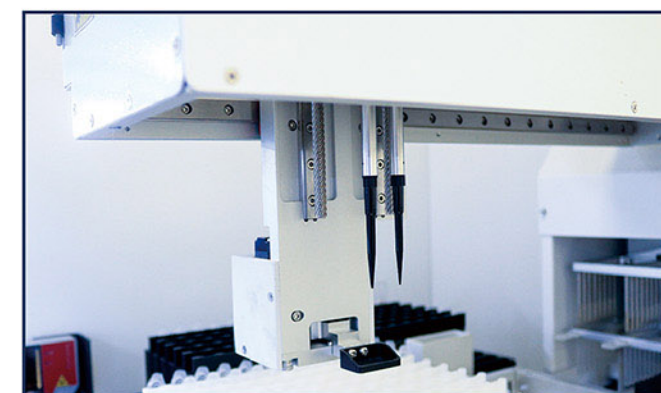
## Features:

① Display: 10.1 inch touch screen, easy to operate

② Accurate temperature control and rapid temperature rise, can be adopted to actively reduce to room temperature and store samples in a short time at low temperature.

③ The module is integrated with shaking and heating, which can be mixed with shaking while heating, saving extraction time.

④ Equipped with ultraviolet disinfection lamp, HEPA high efficiency filter and safety door protection function, it can effectively prevent aerosol pollution.
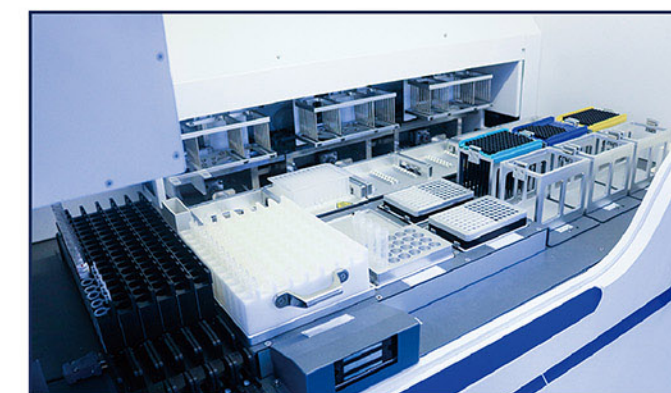
## Parameters:

| Model | BK-HS96 |
|---|---|
| Nucleic Acid Extraction Method | Paramagnetic particle method |
| Sample Capacity | 96-well |
| Sample Volume | 20-1000ul |
| Extraction Time | 11min-60min |
| Magnetic Bead Recovery | ≥98% |
| Magnetic Flux of Bar | ≥4500Gs |
| Operating Temperature | RT-105℃ |
| Shock Function | Yes |
| Temperature Accuracy | 0.1℃ |
| Sample Protection Function | Power on self-check, power off protection, high-temperature alarm, over-temperature protection |
| Disinfection Method | UV Light |
| Safety Door Design | The instrument is suspended when the safety door is opened |
| Operating System | Windows system |
| Scanning | Optional |
| Storage | >1000 |
| Interface | USB interface |
| Power Supply | AC100-240V 50Hz/60Hz |
| Package Size(W*D*H) | 940*710*910mm |
| Gross Weight | 110kg |

# Automatic Nucleic Acid Extraction System BK-AutoHS96





**Robotic Arm**



**Working Zone**
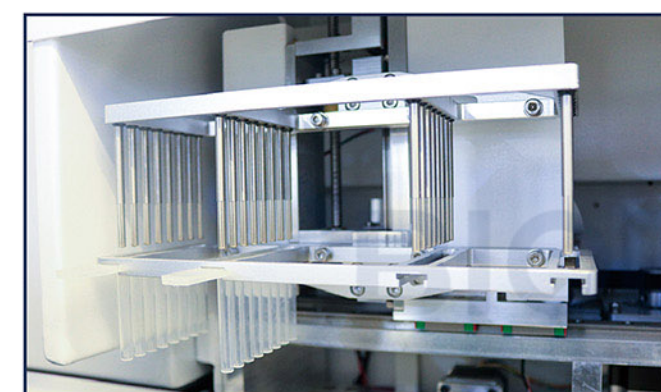


**Extraction Area**



**LCD Display**

## Introduction:

BK-AutoHS96 Automatic Nucleic Acid Extraction System is a fully automatic high-throughput equipment with automatic sample addition, nucleic acid extraction and PCR system configuration. With magnetic bead extraction reagents, it is suitable for automatic nucleic acid extraction and purification of 1-96 clinical samples of various types. The flexible automatic liquid handling function can accurately complete sample loading and reagent distribution according to requirements. Humanized software design, simple operation, no manual steps, greatly improving work efficiency.
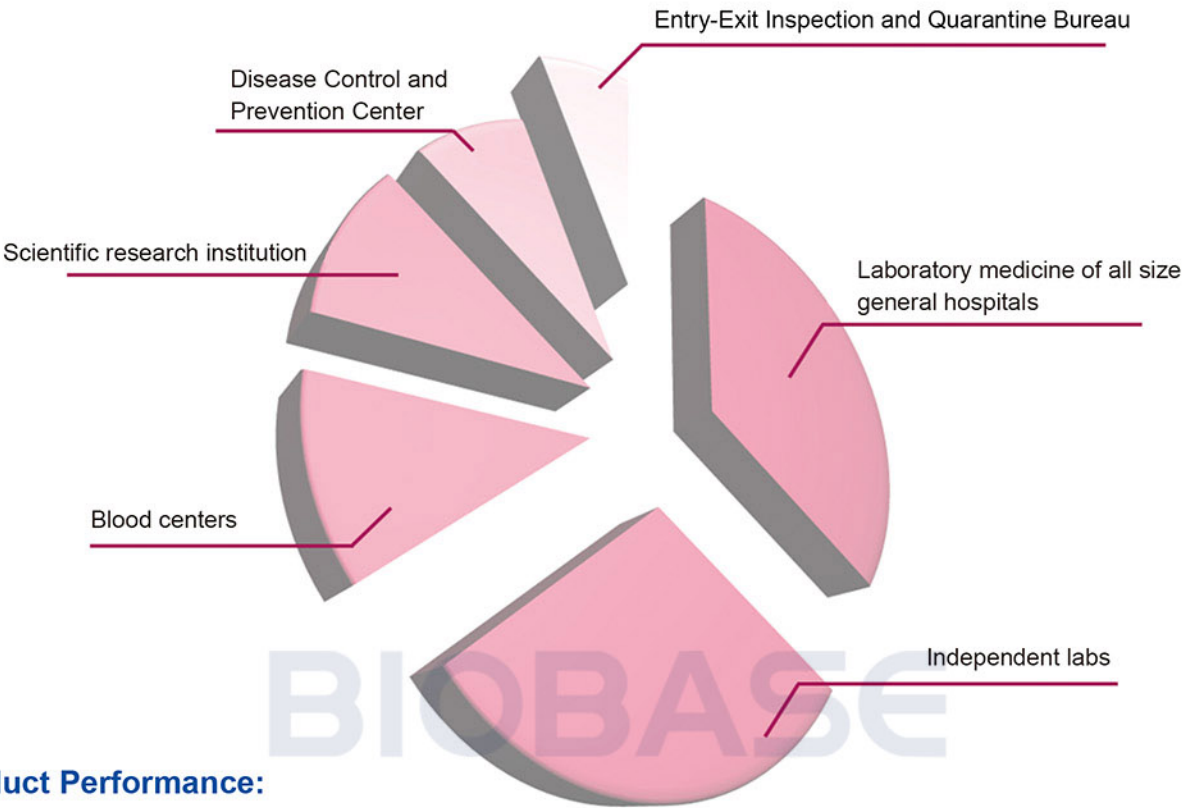
## Feature:

* Accurate pipetting, air pressure correction can adapt to extreme environments such as flat ground, plateau, island, etc., to ensure the accuracy of pipetting.

* 96 samples can be processed within 60 minutes, realizing high-throughput processing of samples, saving time and effort.

* Reagent position and PCR plate position, can be refrigerated at 4℃.

* With high-efficiency filter, ultraviolet disinfection and sterilization, and safety door functions, effectively prevent microbial pollution.

* Multi-threaded control and three-module extraction can run three different extraction programs at the same time.

* Intelligent temperature control, over-temperature protection function.

* Preset multiple experimental programs, strong compatibility, suitable for various types of sample graphic guides, visualized operations.

* Nucleic acid products can be allocated to the 2*96 PCR reaction system to flexibly construct a variety of different PCR detection systems.
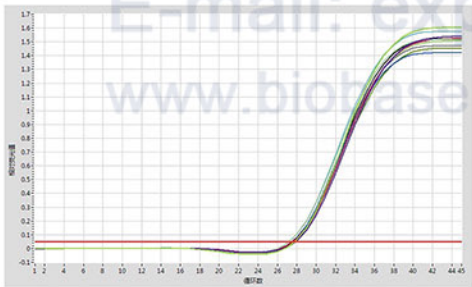
## Application:



- Entry-Exit Inspection and Quarantine Bureau
- Disease Control and Prevention Center
- Scientific research institution
- Laboratory medicine of all size general hospitals
- Blood centers
- Independent labs

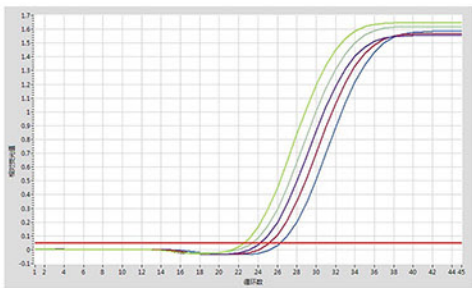## Product Performance:

### Precision



The same HCV samples were repeatedly extracted for 10 times and analyzed by qPCR. CV<3%

### Sensitivity
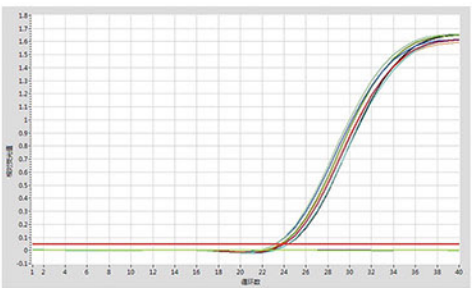


The HCV samples with the concentration of 151U/mL were extracted, and the detection rate was 10/10

### Linear



The HCV positive samples were diluted with equal dilution, and the linear correlation coefficient was R² > 0.98

### Cross Contamination



HCV positive and negative samples were cross-extracted without cross-contamination

### Parameters:

| Model | BK-AutoHS96 |
|---|---|
| Extraction Method | Magnetic Bead Method |
| Working Mode | Automatic sampling + Nucleic acid extraction + PCR reaction system addition |
| Throughput | 1-96, Linear slide type sample rack |
| Extraction Volume | 20-1000ul |
| Processing Time | Complete the processing of 96 samples within 60 minutes (related to reagents) |
| Magnetic Bead Recovery | ≥98% |
| Temp Range | RT-105℃, Lysis and elution position |
| Temp Accuracy | 0.1℃ |
| Heating Method | Dry bath heating |
| Heating Speed | RT-100℃≤6min |
| Shaking Function | Up and down oscillation (1-5 gears adjustable) |
| Extraction Position | 6 (96-well deep well plate) |
| Robotic Arm | A robotic arm for adding samples and reagents |
| Pipetting Channel | 2 Channel |
| Liquid Detection | Pneumatic liquid level detection principle, intelligent detection of blocked needle |
| Pipetting Tip | 50ul,200ul,1000ul, Disposable black conductive needle with filter element |
| Tip Amount | 2-3 Tips/sample |
| Pipetting Accuracy | 10ul, CV≤3.0%, Accuracy≤5.0%, 50ul Tip |
| | 50ul, CV≤2.0%, Accuracy≤2.0%, 1000ul Tip |
| | 100ul, CV≤1.5%, Accuracy≤2.0%, 1000ul Tip |
| Sample Volume | 2-1000ul |
| Working Zone | 2 PCR positions with cooling function; 6 Tip positions for three types of Tips |
| | 2 Reagent positions (5ml freezing tube rack position with cooling function, one reserved position) |
| Protective Function | Start up self-test, Power-off protection, High temperature alarm, Over-temperature protection, Tip removal protection |
| Disinfection Method | UV lamp (30W*1, 8W*1) |
| Illumination Lamp | 10W LED lamp |
| Audible Alarm | Yes (Red and blue blinking) |
| Safety Door Design | With safety lock function, the safety door is opened and the program is suspended |
| Display | 10.1inch touch screen, Windows System |
| Scanning | Optional |
| Interface | LAN interface (Bi-direction LIS optional) |
| Contamination Control | Built-in air duct and HEPA filter can effectively filter internal aerosols and prevent cross-contamination |
| IAP Function | Firmware can be upgraded online at any time |
| Power Supply | 110/220V,50/60Hz |
| External Size (W*D*H) | 1420*850*1842mm |
| Package Size (WD*H) | 1535*970*1180mm (Main instrument)  1540*970*1160mm(Base) |
| Gross Weight | 360kg(Main instrument); 190kg(Base) |

# Multi-type Sample DNA/RNA Extraction-Purification Kit (Magnetic Beads Method)



**Reagent For BNP32/48**　　**Reagent For BK-HS32/AutoHS96**
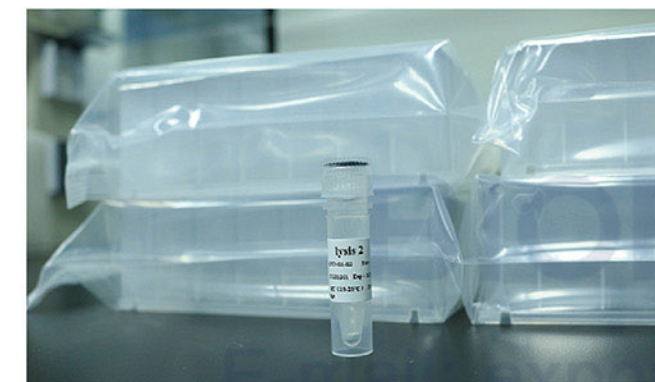
**Reagent For BNP96**　　**Reagent For BK-HS96**

## Application:

The magnetic beads and buffer system with unique separation effect can be used to extract high-purity viral DNA/RNA from samples quickly, highly sensitively and efficiently.

The extracted and purified nucleic acid can be used in various common downstream experiments such as restriction digestion, reverse transcription, PCR, RT-PCR, Southern blot, etc.

## Method Advantage:

①. Safe and efficient　　②. Less time requirement

## Extraction process:

Add lyse- add magnetic bead- separate magnetic bead-washing- Separate magnetic

## Product advantage:

①. High sensitivity: High-quality nucleic acid can be extracted after the positive samples are diluted by $10^4$

②. Good repeatability: Good repeatability of extracting the same sample

## Parameters:

| Name | Specification | Note Mark |
|---|---|---|
| Nucleic Acid Extraction Kit I | 50T/Box | Manual |
| Nucleic Acid Extraction Kit II | 32T/64T/96T/Box | Auto for BK-HS32 |
| Nucleic Acid Extraction Kit III | 96T/Box | Auto For BK-HS96 |
| Nucleic Acid Extraction Kit IV | 96T/Box | Auto for BNP96 |
| Nucleic Acid Extraction Kit V | 64T/Box | Auto for BNP-32&48 |
| Nucleic Acid Extraction Kit VI | 96T/Box | Auto for BK-AutoHS96 |

# Fluorescent Quantitative Detection System LEIA-X4

## Introduction:

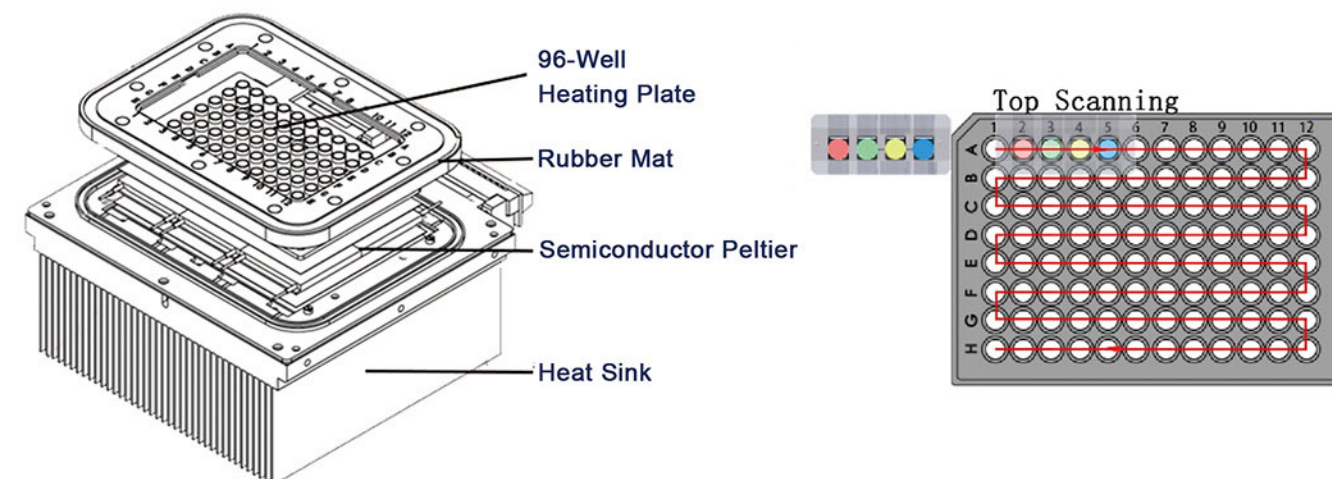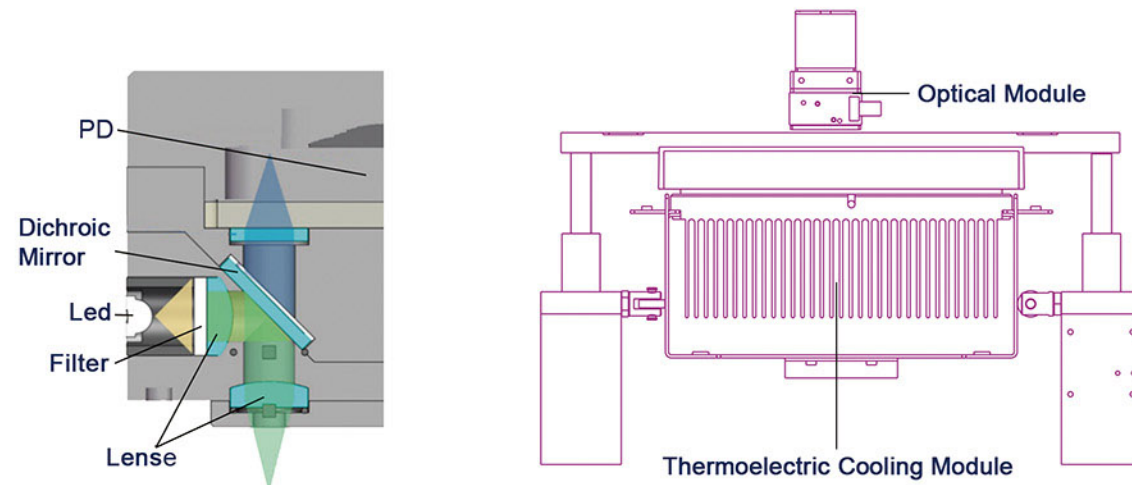Real- time PCR is used for sensitive, specific detection and quantification of nucleic acid targets. We have developed powerful assay design algorithms, optimized qPCR regent, intuitive data analysis software, and flexible instrumentation to help harness the power of qPCR across a rich and diverse set of applications. Explore our robust solutions for your qPCR-based research.

## Application:

It can be widely used for Infectious disease research, Food pathogen detection, Waterborne pathogen detection, Pharmaceutical analytics, Stem cell research, Pharmacogenomics research, Oncology and genetic disease research, Plant sciences and agricultural biotechnology.
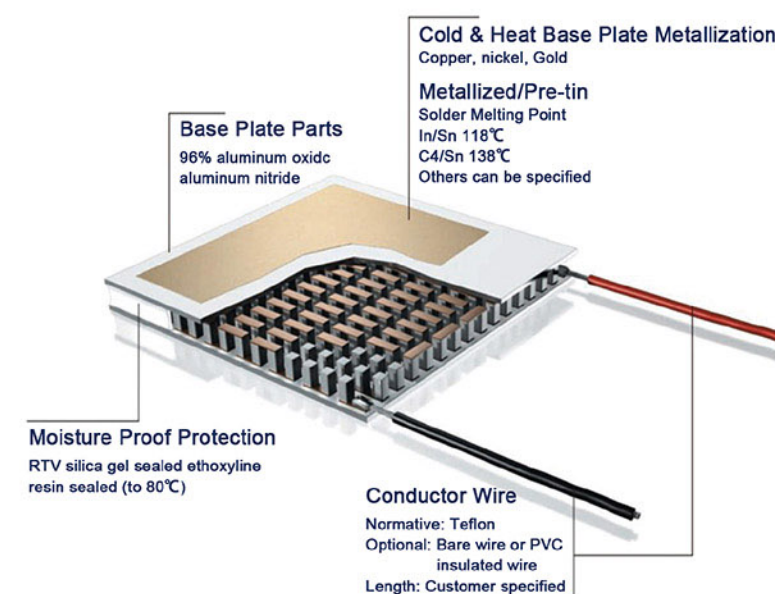
## Working Principle:

The temperature step change is controlled by the semiconductor peltier to realize PCR amplification. Use high-sensitivity PD unit to detect fluorescence; Program control channel switching, non-contact excitation/detection on the top structure, coordinated with motor control x and Y axis movement to achieve 96-hole scanning. Finally, accurate analysis is carried out through powerful software.



- PD
- Dichroic Mirror
- Led
- Filter
- Lense

Optical Module

Thermoelectric Cooling Module

**96-Well Heating Plate**

**Rubber Mat**

**Semiconductor Peltier**

**Heat Sink**

Top Scanning

## Features:

* Excellent temperature control performance of the instrument, the maximum temperature rise and fall ≥7.0℃/s.

* No edge effect, no optical path correction, top excitation/detection, non-contact measurement.

* Fluorescence detection adopts PD sensor with high sensitivity.

* Long-life LED light source, stable emission wavelength, maintenance-free.

* 4-channel fluorescence detection, no cross interference between channels.

* User-friendly and fully functional software, flexible program setting, comprehensive analysis and reporting functions, all the parameters can be stored.

**Cold & Heat Base Plate Metallization**
Copper, nickel, Gold

**Metallized/Pre-tin**
Solder Melting Point
In/Sn 118℃
C4/Sn 138℃
Others can be specified

**Base Plate Parts**
96% aluminum oxide
aluminum nitride

**Moisture Proof Protection**
RTV silica gel sealed ethoxyline
resin sealed (to 80℃)

**Conductor Wire**
Normative: Teflon
Optional: Bare wire or PVC
insulated wire
Length: Customer specified

### Real-time PCR Hardware:

Thermoelectric cooling module (TEM) is a semiconductor device composed of many tiny and effective heat pumps. By applying a low-voltage DC power supply, heat will be transferred from one side of the TEM to the other side, resulting in a phenomenon that one side of the TEM becomes hot and the other side becomes cold. Since this phenomenon is completely reversible, when the polarity of the DC power supply is changed, it will be affected. Shift in the opposite direction. This product adopts a long-life series TEM, which provides longer life and more efficiency during thermal cycling.
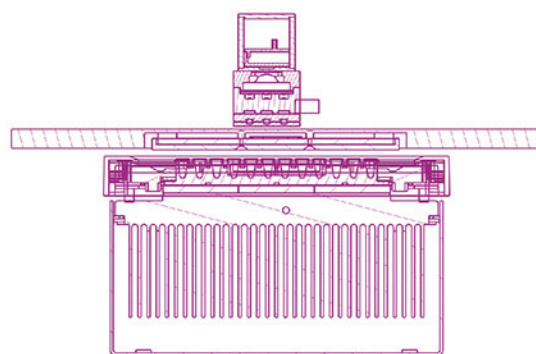
The integrated design of the scanning module and the heating cover module, relying on its own gravity to compress the heating plate and the reagent cover, and is supported by four compression springs to prevent the sample tube from being crushed; at the same time, the rubber pad around the heating cover is pressed to ensure that there is no external light source interference in the detection ; The bottom of the cam mechanism is used to support the spacing to ensure the smooth sliding of the heating module; the guide rail mechanism on both sides of the heating module prevents the module from shifting and ensures the accuracy of the mechanical scanning structure.

## Real-time PCR Software:

The software includes functions such as absolute quantification experiment, melting curve experiment, relative quantification (AACT) experiment, and genotyping experiment. Enter the attribute setting interface and select different function modules. Guided flow operation, convenient for users to quickly complete experimental settings. The software can open the recent experiment record template for easy viewing of recent experiments and the creation of new experiments.
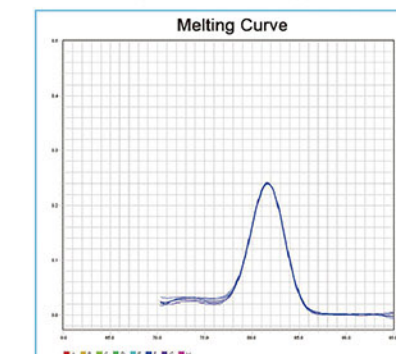
## Absolute Quantification Experiment:
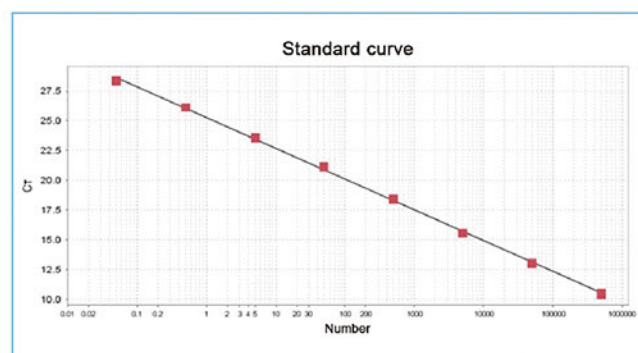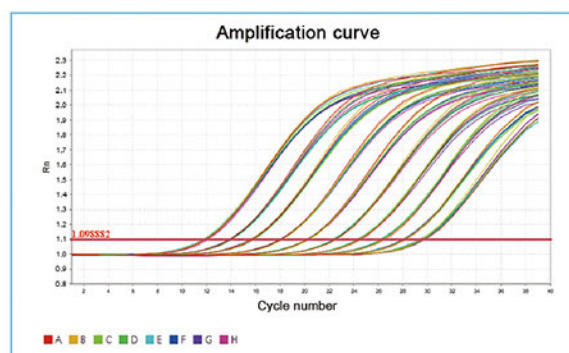


## Relative Quantification (AACT) Experiment:
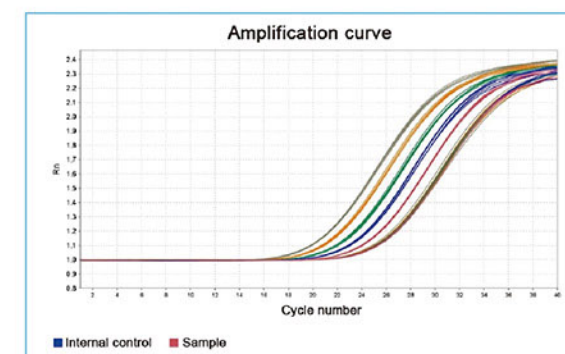


## Melting Curve Experiment:



## Parameters:

| Model | LEIA-X4 | | | |
|---|---|---|---|---|
| Sample Capacity | 96*0.1ml PCR plate, 12*8-strip tubes, 96*0.1ml single tube (Transparent Cover) | | | |
| Reaction System | 10~50µl | | | |
| Dynamics Range | 1-10$^{10}$copies | | | |
| Channel | 4 | | | |
| Emission Light | LED | | | |
| Detector | PD | | | |
| Detection Path | F1 | F2 | F3 | F4 |
| Suitable Probe/Dye | FAM/SYBR GREEN | VIC/JOE/ HEX/TET | ROX/TEXAS-RED | Cy5 |
| Excitation Wavelength | 455~645nm | | | |
| Detection Wavelength | 510~710nm | | | |
| Fluorescence Detection Repeatability | CV≤2% | | | |
| Fluorescence Detection Accuracy | CV≤3% | | | |
| Fluorescence Detection Linearity | r≥0.995 | | | |
| Module Temp. Range | 4-105℃(resolution:0.1℃) | | | |
| Ramp Rate | 7.0℃/s(max) | | | |
| Temp. Accuracy | ±0.3℃ | | | |
| Temp. Uniformity | ≤ ±0.3℃ | | | |
| Temp. Control Mode | Block mode | | | |
| Hot-Lid Temp. Range | 30-110℃(resolution:0.1℃) | | | |
| Scanning Mode | Full plate scanning | | | |
| Programming | Max 100 Segments for Each Program, Max 99 Cycles | | | |
| Operation Mode | Continuous | | | |
| Scanning Time | 8.5s | | | |
| Special Function | Absolute quantitative automatic analysis, relative quantification, melting curve analysis, etc. | | | |
| Operation System | Microsoft: Windows10x64 | | | |
| Power Supply | AC 100V~240V,50/60Hz | | | |
| Dimension(L*W*H) Mm | 375*505 *375 | | | |
| Port Method | USB Port | | | |
| Packing Size(L*W*H) Mm | 645*565*605 | | | |
| Gross Weight | 48 kg | | | |

# Novel Coronavirus (2019-nCoV) Nucleic Acid Detection Kit (Fluorescence PCR)

## Introduction:

This product selects the ORF1ab and N gene regions of 2019-novel coronavirus, and designs two sets of specific primers and fluorescent probes that cover two sites of the gene at the same time. In order to control the entire extraction and detection process, human β-Globin gene was act as a non-competitive internal control during the extraction and detection process. The RT-PCR reaction solution is pre-mixed, which is convenient, efficient and easy to operate. It utilizes high-efficiency Taq DNA Polymerase and has strong stability. The kit could be used for auxiliary diagnosis and epidemiological surveillance of 2019-novel coronavirus infection.

## Application:

Medical and health industry, food industry, biological industry, scientific research, etc.

## Advantage:

①. Internal control: Human β-Globin gene as the internal control is included into the reagent to verify the validity of the experiment.
②. High sensitivity: The lowest detection limit is 500 copies/ml.
③. High specificity: Primers and probes are designed for specific fragments of two gene regions, which confirm each other to make the results more accurate. No cross-reactivity with other pathogens with the same site of infection or similar infection characteristics.
④. Strong stability: CV of each channel is all <3%.
⑤. Multiple Real-time RT-PCR detection: Each channel does not interfere with each other, and the amplification curve is S-shaped.
⑥. Simple operation: one-step method to complete RT-PCR, The whole procedure can be detected within 80min.
⑦. Fast speed: The PCR amplification time is less than 80 minutes.

## Experimental Data:

1.Repeatability experiment:
2019-nCoV nucleic acid samples at the concentration of 5*106copies/mL and 5*105copies/mL were tested by the 2019-nCoV RT-qPCR detection kit to verify the stability of the detection kit. The results are as follows:


$5*10^6$ copies/mL


$5*10^5$ copies/mL
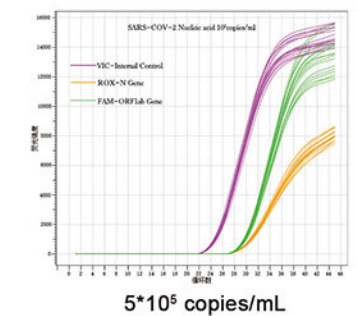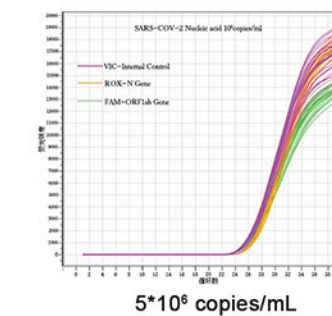
2.Repeatability experiment of internal control:
Repeat 96 times for the same negative sample on the BNP96 nucleic acid extraction system, and tested by the 2019-nCoV RT-qPCR detection kit to verify the stability of the internal control, The results are as follows:


Stability experiment of internal control
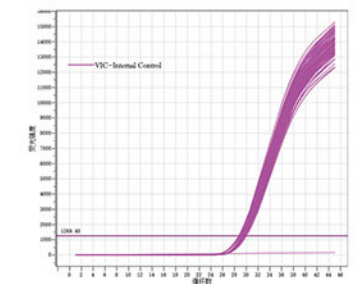
3.Repeatability experiment of lower limit:
2019-nCoV nucleic acid samples at the concentration of 500 copies/mL were tested by the 2019-nCoV RT-qPCR detection kit to verify the stability of the lower limit. The results are as follows:


500 copies/mL
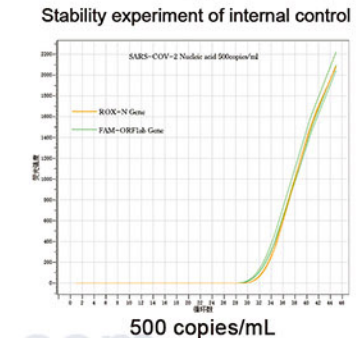
## Parameters:

| Product Name | Novel Coronavirus (2019-nCoV) Nucleic Acid Detection Kit (Fluorescence PCR) |
|---|---|
| Detection Principle | Fluorescence PCR |
| Detection Target | Novel coronavirus (2019-Ncov) ORF1ab and N gene |
| Applicable Instrument | Fluorescence quantitative PCR instrument |
| Storage Conditions | -20±5℃, keep away from light |
| Valid Period | Unopened ≥6 months; Opened≥90 days |
| Sample Volume | 7ul |
| Reaction Volume | 20ul |
| Detection Limit | 500 copies/ml |
| Stability | CV <3% |
| Interpretation of Positive Results | CT≤38 |
| Packing Specification | 48T/box; 60 boxes/carton |
| Packet Size | 500*500*500mm |
| Gross Weight | 23kg |

＊ Not Available in the U.S

# Monkeypox Virus (MPV) Nucleic Acid Detection Kit (PCR-Fluorescence Probe Method)
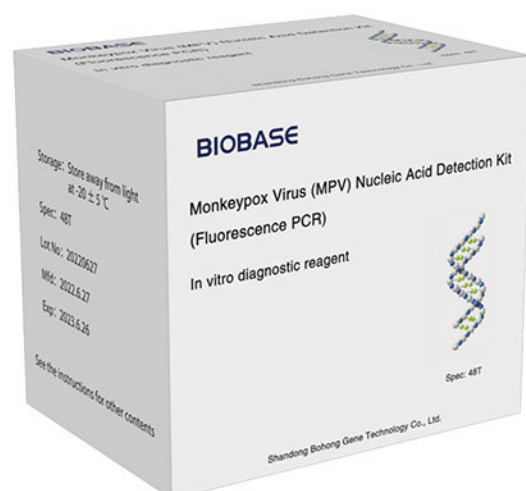


### Application:

It is applied to the monitoring and auxiliary diagnosis of monkeypox virus. The application scenarios mainly include hospitals, CDC, scientific research institutions, and third-party medical testing laboratories recognized by health administrative agencies.
(Not Available in the U.S)

### Introduction:

Monkeypox is a zoonotic disease caused by the monkeypox virus, which can be transmitted from animals to humans as well as from human to human. Monkeypox symptoms often include fever, severe headache, muscle aches, swollen lymph nodes, skin lesions, and more. According to the World Health Organization, more than 50 countries and regions around the world have reported confirmed cases of monkeypox. There is currently no cure for monkeypox, and the World Health Organization urges countries to strengthen surveillance and testing of the infectious disease.
This product is based on real-time fluorescent PCR technology, selects the highly conserved region of the monkeypox virus gene coding region as the target region, designs specific primers and fluorescent probes for PCR amplification, and performs PCR amplification on patient serum and lesion leaching fluid (vesicular fluid, pustule fluid) Qualitative detection of monkeypox virus DNA in It is suitable for auxiliary diagnosis of related diseases caused by monkeypox virus infection.

### Features:

Internal Control: the kit contains Internal Control, which is involved in nucleic acid extraction and PCR detection to avoid false negative results
Control: Both negative and positive control in the kit need to be extracted for environmental monitoring and quality control of PCR detection reagents
High Sensitivity: The detection limitation is 200 copies/ml
High Specificity: No cross reaction with other pathogens
Fast Speed: Nucleic acid extraction completed within 10 minutes, and the PCR amplification time is less than 1 hour
Certificate: CE declaration of conformity

### Parameters:

| Product Name | Monkeypox Virus (MPV) Nucleic Acid Detection Kit (PCR-Fluorescence Probe Method) |
|---|---|
| Detection Principle | Fluorescence PCR |
| Detection Target | Monkeypox Virus F3L gene |
| Sample Types | Serum or lesion exudate samples |
| Applicable Instruments | ABI7500、LEIA-X4、FQD-96A, etc |
| Storage | -20±5℃ |
| Valid Period | 12 Months |
| Reaction Volume | 25ul |
| Detection Time | <60 min |
| Detection Limit | 200 copies/ml |
| Packing Specification | 24T/box or 48T/box or 96T/box; 90 boxes/carton |
| Packet Size (L*W*H) | 500*500*500mm |
| Gross Weight | 24kg(24T/box); 25.5kg(48T/box); 28kg(96T/box) |

# 5-Part Auto Hematology Analyzer BK-6310



### Features:

①. Throughput: 60T/H.
②. 14 inch touch screen.
③. Tri-angle laser scatter + flow cytometry method + impedance method for counting.
④. 3D holographic scattergram displays the accurate 5 part differentiation of WBC.
⑤. Large storage capacity: 100,000 results (including histogram, scattergram, patient information).

### Parameters:

| Model | BK-6310 | | | |
|---|---|---|---|---|
| Throughput | 60 Tests/hour | | | |
| Assay Items | 5 parts, 29 parameters, 3 histograms, 3D scattergram | | | |
| Principle | Tri-angle laser scatter, Flow cytometry method, 3D scattergram analysis, Impedance method for RBC and PLT counting, Cyanide free reagent for HGB test | | | |
| Test Mode | CBC mode, CBC+DIFF mode Venous whole blood, Capillary whole blood and Prediluted | | | |
| Parameters | WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV, PLT, MPV, PCT, PDW, P-LCR, P-LCC, NEU%, LYM%, MON%, EOS%, BAS%, NEU#, LYM#, MON#, EOS#, BAS# 4 Research parameter: ALY%, ALY#, IG%, IG# | | | |
| Performance | Item | Linearity range | Carry Over | CV |
| | WBC | 0~300*10⁹/L | ≤ 0.5% | ≤ 2.0% |
| | RBC | 0~8.00*10¹²/L | ≤ 0.5% | ≤ 1.5% |
| | HGB | 0~250g/L | ≤ 0.5% | ≤ 1.5% |
| | PLT | 0~3000*10⁹/L | ≤ 1.0% | ≤ 4.0% |
| Sample Volume | CBC+DIFF mode: ≤20μl        CBC mode: ≤10μl | | | |
| Storage | 100,000 results including histogram, scattergram and patient information | | | |
| Interface | 4 USB ports, 1LAN port Bi-direction LIS, support HL7 protocol, Internal RFID reader | | | |
| Power Supply | AC220V±10% 50/60Hz; 110V±10% 60Hz; 400VA | | | |
| Package Size(W*D*H) | 670*590*790mm | | | |
| Gross Weight | 53kg | | | |
| Reagent Package Size | 330*330*330mm, 400*290*240mm, 400*290*240mm | | | |
| Reagent Gross Weight | 22kg, 2kg, 1kg | | | |

# Auto Hematology Analyzer
# BK-3100

**Technical Parameter:**

| Model | BK-3100 | | | | |
|---|---|---|---|---|---|
| Throughput | 60 samples/hour | | | | |
| Principle | Impedance for WBC differentiation and WBC/RBC/PLT count; Colorimetric method for HGB | | | | |
| Channels | 2 | | | | |
| Parameters | 21 parameters(including WBC, Mid#, Lym#, Gran#, Mid%, Lym%, Gran%, RBC, HGB, HCT, MCV, MCH, MCHC,RDW-SD, RDW-CV, PLT, MPV,PDW,PCT, P-LCR,P-LCC) | | | | |
| Histograms | 3 histograms (including WBC, RBC, PLT histograms) | | | | |
| Sample Volume | Whole blood: 10µl, Prediluted: 20µl | | | | |
| Calibration | Manual, auto calibration | | | | |
| Counting Modes | Venous, capilary, prediluted | | | | |
| Printing Model | Auto print, manual print | | | | |
| LIS | Support Bi-directional LIS | | | | |
| Language | Chinese, English, Spanish, French, Russian, Ukrainian | | | | |
| Reagent | Diluent 20L, Hemolytic agent 500ml, Probe cleanser: 50ml | | | | |
| Data Input | 9.7-inch touch screen, mouse, keyboard (optional) | | | | |
| Output | Internal printer, support external printer | | | | |
| Printer Paper | 57*30mm | | | | |
| Interface | 4 USB ports, network port,RS232 serial port | | | | |
| Storage | 100,000 results with histogram | | | | |
| Unclog | High voltage burn, reverse high-pressure flush | | | | |
| Work Temperature | 15-30℃ | | | | |
| Power Supply | 100~240 AC, 50/60Hz, 150VA | | | | |
| Relative Humidity | 30%~85% | | | | |
| Atmospheric Pressure | 70.0kPa-110.0kPa | | | | |
| Carry-Over Rate | Parameter | WBC | RBC | HGB | PLT |
| | CV | ≤ 1.5% | ≤ 1% | ≤ 1% | ≤ 3% |
| Background | Parameter | WBC | RBC | HGB | HCT | PLT |
| | Background | ≤ 0.3*10$^9$/L | ≤ 0.03*10$^{12}$/L | ≤ 1 g/L | ≤ 0.5% | ≤ 10*10$^9$/L |
| Linearity | Parameter | Measurement range | | CV | |
| | WBC | (0.5~10.00*10$^9$)/L | (10.10~99.9*10$^9$)/L | (±0.5*10$^9$)/L | ±5% |
| | RBC | (0.05~1.00*10$^{12}$)/L | (1.01~9.99*10$^{12}$)/L | (±0.05*10$^{12}$)/L | ±5% |
| | HGB | (2~70g)/L | (71~300.0g)/L | (±2.0g)/L | ±2% |
| | PLT | (10~100*10$^9$)/L | (101~999*10$^9$)/L | (±10.0*10$^9$)/L | ±8% |
| Precision | Parameter | Whole blood (CV) | Pre-diluted (CV) | Measurement range | |
| | WBC | ≤ 2.0% | ≤ 4.0% | (4.0-15.0*10$^9$)/L | |
| | RBC | ≤ 1.6% | ≤ 3.0% | (3.5-6.0*10$^{12}$)/L | |
| | HGB | ≤ 1.6% | ≤ 3.0% | (110.0-180.0g)/L | |
| | MCV | ≤1.0% | ≤2.0% | (70.0-120.0)fL | |
| | PLT | ≤ 4.0% | ≤8.0% | (150.0-500.0*10$^9$)/L | |
| External Size(W*D*H) | 295*467*418mm | | | | |
| Packed Size(W*D*H) | Instrument: 404*564*616mm; Reagent: 480*480*480mm | | | | |
| Net Weight | 19 kg | | | | |
| Gross Weight | Instrument: 31kg; Reagent: 25 kg | | | | |

**Features:**

① 9.7-inch color touch LCD screen, easy to operate, display all parameters and histograms on the same screen.

② Fewer samples are required for testing: whole blood≤10ul, pre-diluted≤20ul.

③ 60 samples/hour.

④ 21 parameters + 3 histograms.

⑤ It can be turned on continuously for 24 hours.

⑥ Automatically clean the sampler, counting pool and pipeline after starting up.

⑦ Built-in thermal printer, external printer can be connected.

⑧ Electrical impedance method, cyanide-free detection of HGB.

⑨ Fully intelligent blockage removal and alarm function.

⑩ Both automatic calibration and manual calibration are available.

⑪ Counting Mode: Venous, capilary, prediluted.

⑫ Support LIS system.

# Electrolyte Analyzer BKE



Semi-auto Electrolyte Analyzer
BKE-A/C

Auto Electrolyte Analyzer
BKE-B/D

## Introduction:

BKE series electrolyte analyzer adopts advanced ion selective electrode measurement technology, which can directly measure the concentration of $K^+$, $Na^+$, $Cl^-$, $Ca^{2+}$ and pH in serum, plasma, whole blood, cerebrospinal fluid and diluted urine. It is a fast, accurate, convenient and practical clinical testing instrument.

## Features:

① The software supports automatic potential tracking correction to ensure stable performance.
② Automatic monitoring and filtering of tiny air bubbles to ensure measurement accuracy.
③ Wave flushing and pipeline flushing can avoid blockage and cross-contamination.
④ Power-off protection, can protect data storage, the result can be stored up to 50,000.
⑤ Low consumption, effectively reducing the cost of consumables.
⑥ 7-inch high-definition touch screen, comprehensive content display.
⑦ With the function of automatic fault alarm and elimination, improve work efficiency.

## Parameters:

| Model | BKE Series |
|---|---|
| Sample | Serum, plasma, whole blood, cerebrospinal fluid and dilute urine |
| Measuring Speed | ≤25s |
| Analysis Method | Ion selective electrode (ISE) |
| Sample Volume | 60~150ul |
| Sample Position | 26 sample positions, 5 emergency positions, 2 QC positions |
| Injection Mode | Manual or automatic injection can be selected |
| Storage | Up to 50,000 test results |
| Printer | Build-in thermal printer |
| Interface | RS232 port for LIS |
| Display | 7-inch high-definition touch screen |
| Language | Chinese and English, other languages can be customized |
| Calibration | Automatic and Manual calibration |
| Other Function | Sample volume detection |
| Power Supply | AC110~240V,50/60Hz, 100W |
| Temperature | 10~30℃ |
| Relative Humidity | ≤ 80 % |
| Atmospheric Pressure | 86~106 kPa |

| Model | BKE-A | BKE-B | BKE-C | BKE-D |
|---|---|---|---|---|
| Test Items | $K^+$, $Na^+$, $Cl^-$ | $K^+$, $Na^+$, $Cl^-$ | $K^+$, $Na^+$, $Cl^-$, $iCa^{2+}$, $nCa^{2+}$, $TCa^{2+}$, pH | $K^+$, $Na^+$, $Cl^-$, $iCa^{2+}$, $nCa^{2+}$, $TCa^{2+}$, pH |
| Sample Tray | No | Yes | No | Yes |
| External Size(W*D*H) | 396*202*434mm | 668*276*434mm | 396*202*434mm | 668*276*434mm |
| Net Weight | 8.2kg | 11.9kg | 8.2kg | 11.9kg |
| Package Size(W*D*H) mm | Instrument:390*500*530 Reagent:215*160*130 | Instrument:390*500*720 Reagent:215*160*130 | Instrument:390*500*530 Reagent:215*160*130 | Instrument:390*500*720 Reagent:215*160*130 |
| Gross Weight (kg) | Instrument:13 Reagent:1.8 | Instrument:17.5 Reagent:1.8 | Instrument:13 Reagent:1.8 | Instrument:17.5 Reagent:1.8 |

| Items | Measuring Range | Resolution |
|---|---|---|
| $K^+$ | 0.5-20.0mmol/L | 0.01 mmol/L |
| $Na^+$ | 15-200mmol/L | 0.1 mmol/L |
| $Cl^-$ | 15-200mmol/L | 0.1 mmol/L |
| $Ca^{2+}$ | 0.1-6.0mmol/L | 0.01 mmol/L |
| pH | 4-9pH | 0.01 pH |

# Reagent for Electrolyte Analyzer (ISE)



## Features:

① High quality raw materials.
② Stable performance.
③ Long shelf life.
④ Multiple specifications optional.

## Parameters:

| Product Name | Reagent for Electrolyte Analyzer (ISE) |
|---|---|
| Component | Drift correction solution A:350ml; Slope correction solution B:350ml |
| | Electrode Activation Fluid:100ml; Cleaning Fluid E:100ml |
| | Internal correction solution:100ml |
| | Electrode cleaning Fluid (protease): Protease:25mg*5; Diluent :5mL*1 |
| | Filling solution in electrode:3ml*1; Reference solution:10ml*2 |
| Precision | Repeatability CV≤3%; Batch variations R≤3%. |
| Accuracy | Relative deviation≤±5% |
| Linearity | r≥0.990 |
| Package Size(L*W*H) mm | 215*160*130 |
| Gross Weight(kg) | 1.8 |

# Blood Coagulation Reagent
## Activated Partial Thromboplastin Time (APTT) Assay Kit



### Application:

Activated partial thromboplastin time (APTT) is a screening test to check endogenous coagulation factors, and is used to confirm the deficiencies of congenital or acquired coagulation factors VI, IX, XI or the presence of their corresponding inhibitors; At the same time, APTT can also be used to confirm the deficiency of coagulation factor XI, prokallikrein and high molecular weight prokallikrein; due to the high sensitivity of APTT and the action pathway of heparin is mainly the endogenous coagulation pathway, APTT has become the preferred indicator for monitoring unfractionated heparin, with a ratio of 1.5-2.5 being the best.

This kit is used for the determination of activated partial thromboplastin time in human plasma in vitro for auxiliary diagnosis.

### Features:
①. Convenient and efficient.
②. High accuracy.
③. Good repeatability.

### Parameters:

| Product Name | Activated Partial Thromboplastin Time (APTT) Assay Kit | |
|---|---|---|
| Component | Reagent: 2ml*10, 2.5ml*10, 4ml*10 | |
| | CaCl₂: 25ml*1, 30ml*1, 45ml*1 | |
| | QC (normal, abnormal): 0.5 mL*1, 1.0 mL*1 | |
| Reagent Performance | Reference Range | ≤35s |
| | Repeatability | CV≤5% |
| | Batch Variations | R≤10% |
| QC Performance | In-bottle Uniformity | CV≤10% |
| | Uniformity between Bottles | CV≤10% |

## Prothrombin Time (PT) Assay Kit



### Application:

Prothrombin time is a screening test for exogenous coagulation factors, which is used to confirm the presence of congenital or acquired defects or inhibitors of fibrinogen, prothrombin, and coagulation factors V, VII, and X; At the same time, it is used to monitor the dosage of oral anticoagulants, which is the preferred indicator for monitoring oral anticoagulants. It can also be used as a detection index for the function of hepatic protein synthesis.

This kit is used for the determination of prothrombin time in human plasma in vitro for auxiliary diagnosis.

### Features:
①. High precision.
②. Stable performance.
③. Strong anti-interference.

### Parameters:

| Product Name | Prothrombin Time (PT) Assay Kit | |
|---|---|---|
| Component | Reagent: 2ml*10, 2.5ml*10, 4ml*10 | |
| | Reconstitution solution: 25ml*1, 30ml*1, 45ml*1 | |
| | QC (normal, abnormal): 0.5 mL*1, 1.0 mL*1 | |
| Reagent Performance | Reference Range | ≤14s |
| | Repeatability | CV≤5% |
| | Batch Variations | R≤10% |
| QC Performance | In-bottle Uniformity | CV≤10% |
| | Uniformity between Bottles | CV≤10% |

# Blood Coagulation Reagent
## Thrombin Time (TT) Assay Kit

## Fibrinogen (FIB) Assay Kit

### Application:

TT reflects the level of fibrinogen in plasma and the amount of heparin-like substances in plasma. TT decreased when fibrinogen increased and fibrinogen decreased, otherwise TT increased. Can be used for the detection of heparin dosage. This kit is used to measure thrombin time in human plasma samples in vitro.

### Features:
①. Good stability.
②. Complete specifications.
③. High precision.

### Parameters:

| Product Name | Thrombin Time (TT) Assay Kit | |
|---|---|---|
| Component | Reagent: 2ml*10, 2.5ml*10, 4ml*10 | |
| | Reconstitution solution: 25ml*1, 30ml*1, 45ml*1 | |
| | QC (normal, abnormal): 0.5 ml*1, 1.0 ml*1 | |
| Reagent Performance | Reference Range | ≤20s |
| | Repeatability | CV≤5% |
| | Batch Variations | R≤10% |
| QC Performance | In-bottle Uniformity | CV≤10% |
| | Uniformity between Bottles | CV≤10% |
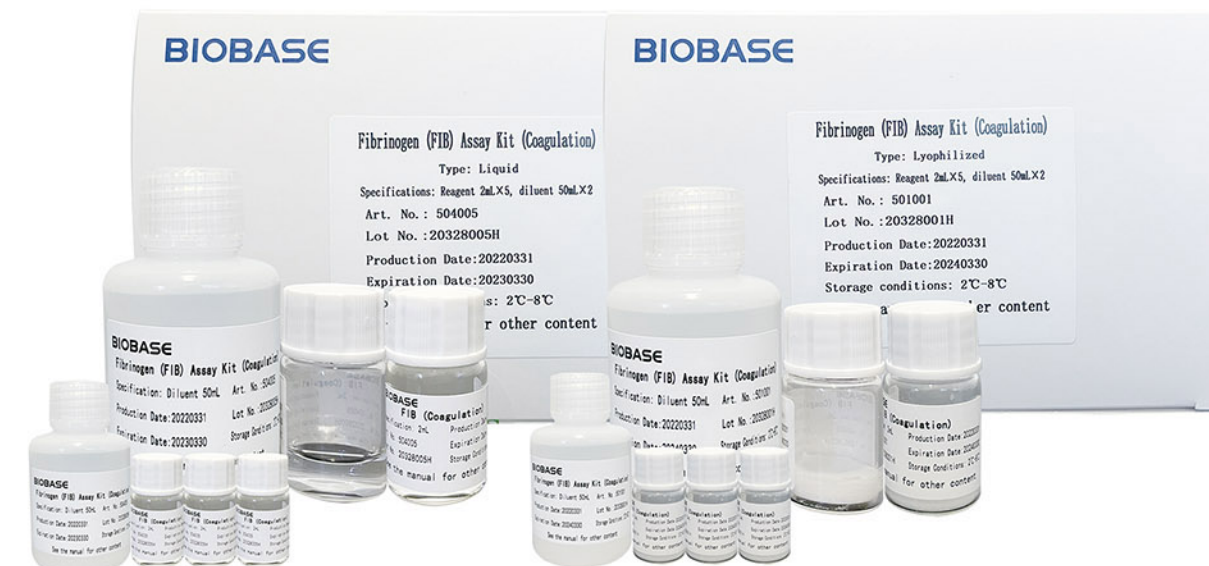
### Application:

Fibrinogen is the main protein in the coagulation process. In addition to the stress response under physiological conditions and the third trimester of pregnancy, FIB increase mainly occurs in acute infections, burns, atherosclerosis, acute myocardial infarction, autoimmune diseases, multiple Myeloma, diabetes, pregnancy-induced hypertension and acute nephritis, uremia, etc.; FIB reduction is mainly seen in DIC, primary hyperthyroidism, severe hepatitis, liver cirrhosis and thrombolytic therapy. This kit is used to quantitatively determine the content of fibrinogen in human plasma in vitro for auxiliary diagnosis.

### Features:
①. Stable performance
②. Good precision
③. Easy to transport

### Parameters:

| Product Name | Fibrinogen (FIB) Assay Kit | |
|---|---|---|
| Component | Reagent:2ml*5, 2.5ml*5, 1ml*10 | |
| | Diluent:50ml*2 | |
| | Calibrator: 0.5 ml*1, 1.0 ml*1 | |
| | QC (normal, abnormal): 0.5 ml*1, 1.0 ml*1 | |
| Reagent Performance | Accuracy | R≤ 15% |
| | Linearity | R> 0.98 @ 80~500mg/dl |
| | Repeatability | CV≤8% |
| | Batch Variations | CV≤15% |
| Calibrator Performance | Correctness | |En| ≤1 |
| | In-bottle Uniformity | CV≤10% |
| | Uniformity between Bottles | CV≤10% |
| QC Performance | In-bottle Uniformity | CV≤10% |
| | Uniformity between Bottles | CV≤10% |

# Auto ESR Analyzer
# BK-ESR40
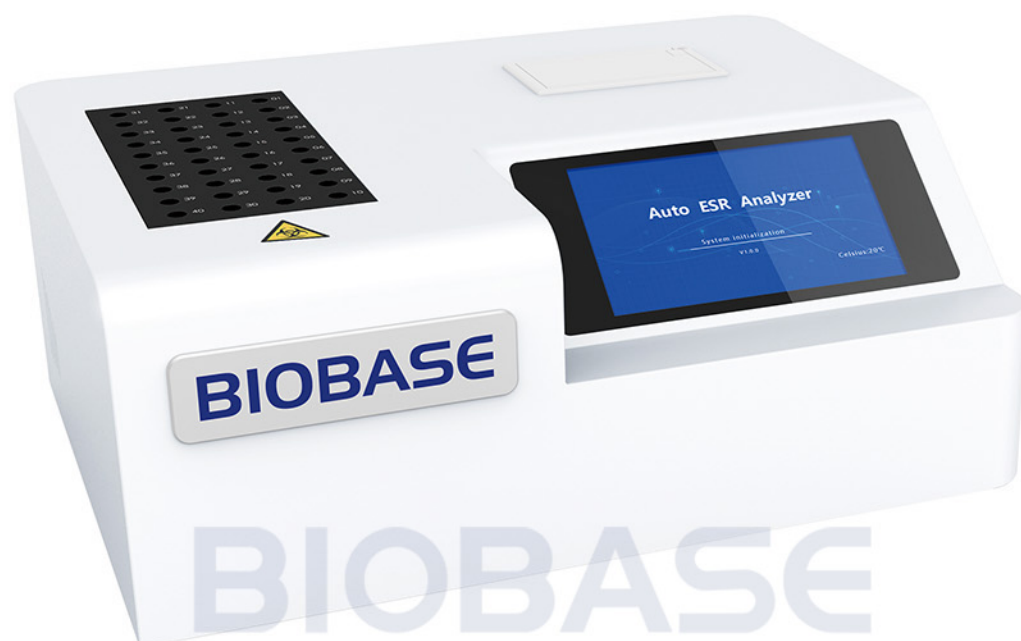


## Introduction:

ESR testing has important guiding significance for many clinical diseases, but the traditional standard Westergren method has complicated operation, low work efficiency and large cross-contamination. Automatic ESR analyzer uses advanced infrared light color difference interpretation technology to automatically scan the whole process of red blood cell sedimentation within 30 minutes for the sample of the vacuum blood collection tube, and refer to the Westergren method to measure the standard curve to obtain accurate results.

## Application:

Applicable to hospital inspection departments, medical laboratories, research institutes, universities, disease control centers, etc.

## Features:

① 7-inch color touch LCD screen, easy to operate, high resolution.

② 80 samples/hour, rapid detection.

③ Randomly insert sample positions for testing at any time.

④ Built-in thermal printer for easy data printing.

⑤ Results are automatically temperature compensated.

⑥ Advanced optical testing principles to overcome reading errors in manual methods.

⑦ Power-off save function, automatically save the test results.

## Parameters:

| Model | BK-ESR40 |
|---|---|
| Application | Erythrocyte sedimentation rate analysis |
| Measurement Method | Infrared detection |
| Analysis Result | Westergren ESR value (mm/hour) |
| Throughput | Maximum 80 tests/hour |
| Analysis Channels | 40 (load up to 40 samples for analysis at the same time) |
| Loading Type | Load samples at any time, measure at any time |
| Analysis Time | 30 minutes or 60 minutes selectable |
| Sampling Interval | 3 min |
| Measurement Range | 0~120mm/h |
| Temperature Compensation | The result is automatically corrected to the result at 18°C |
| Result Resolution | 1mm/1h and 1mm/2h |
| Blood Level Range | 50mm~64mm |
| Result Accuracy | ±2mm/h (ESR≤30mm/h) <br> ±3mm/h (30mm/h＜ESR≤80mm/h) <br> ±5mm/h (ESR＞80mm/h) |
| Result Precision | CV≤2% |
| Channel Error | ≤±4mm/h |
| Reading Accuracy | 0.2mm |
| Timing Accuracy | 90 |
| Display | 7-inch color LCD touch screen |
| Communication Interface | RS232 serial interface |
| Printer | Built-in thermal printer |
| Power Supply | AC220V 50/60Hz |
| External Size (W* D*H) | 340*440*180mm |
| Net Weight | 10kg |
| Package Size (W* D*H) | 665*395*235mm |
| Gross Weight | 11.7Kg |

# Urine Analyzer
# UA-200/UA-300



UA-200　　　　　　　UA-300

## Features:

①. Convenient, fast, accurate and simple.

②. Built-in thermal printer.

③. RS232 interface can be connected to other systems such as urine sediment system.

④. With fault diagnosis function.

⑤. Traceability, each inspection result is photographed and archived, which is convenient for users to

　 review.The environmental temperature monitoring system reduces the influence of the laboratory

　 environment on the test results.（only for UA-300）

## Technical Specifications:

| Model | UA-200 | UA-300 |
|---|---|---|
| Measurement Principle | Albedometry | Artificial Intelligence + Computer Perception Technology |
| Test Items | 14 items, including GLU, BIL, KET, SG, pH, BLD, PRO, URO, NIT, LEU, VC, CRE, CAL, MAL | |
| Test Speed | 60-120 Tests/ hour | 514 Tests/ hour |
| Display | LCD display | 7 inch touch screen |
| Wavelength | 525-660nm | / |
| Working Environment | Temperature 15°C-35°C,Humidity:<85% | |
| Interface | RS232 interface can be connected to other systems such as urine sediment system. | |
| Storage | 2000 patient | Mass storage. Millions of test results can be stored. |
| Printer | Built-in thermal printer | |
| Leakage Proof | Available,avoid cross contamination | |
| Power Supply | AC110V/220V±10%,50/60Hz | 100~240V±10%, 50/60Hz |
| Package Size(W*D*H) | 500*380*250mm | 430*420*380mm |
| Gross Weight | 4.5kg | 5.5kg |

# Auto Urine Analyzer
# UA-240

## Testing Items:

Urobilinogen(UBG), Bilirubin(BIL), Ketone body(KET), Occult blood(BLD), Protein(PRO), Nitrite(NIT), Leukocyte(LEU), Glucose(GLU), Specific gravity(SG), Power of hydrogen(pH), Vitamin C(VC), Micro albumin(MAL), Creatinine(CRF), Calcium ion(CAL).



## Features:

①. High-precision sampler.
②. Auto mixing before aspirating samples.
③. Particular IC card control system and system upgrade function.
④. STAT: emergency insert dedicated location.

## Parameters:

| Model | UA-240 |
|---|---|
| Assay Method | Albedometry |
| Test Speed | 240 Tests/hour |
| Sample Rack | 5 test tube racks(5*10 samples) |
| Sample Volume | Not lower than the marked scale line on the test tube rack |
| Sampling Volume | <1.0ml |
| Wavelength | 525nm, 610nm, 660nm |
| Storage | 20,000 results |
| Interface | RS-232 |
| Language | English and Spanish. Other languages on request |
| Print | Built-in thermal printer |
| Working Environment | Temperature: 15~35°C;  Humidity: ≤75% |
| Power Supply | AC220V±10%, 50/60Hz; 110V±10%, 60Hz |
| Fuse Specification | 250V, 2A |
| Package Size(W*D*H) | 800*595*995mm |
| Gross Weight | 83kg |

# Water Purifier (RO & DI water)
# SCSJ-I-10L/SCSJ-II-30L



SCSJ-I-10L



SCSJ-II-30L

## Purifying Procedure (SCSJ-I-10L):
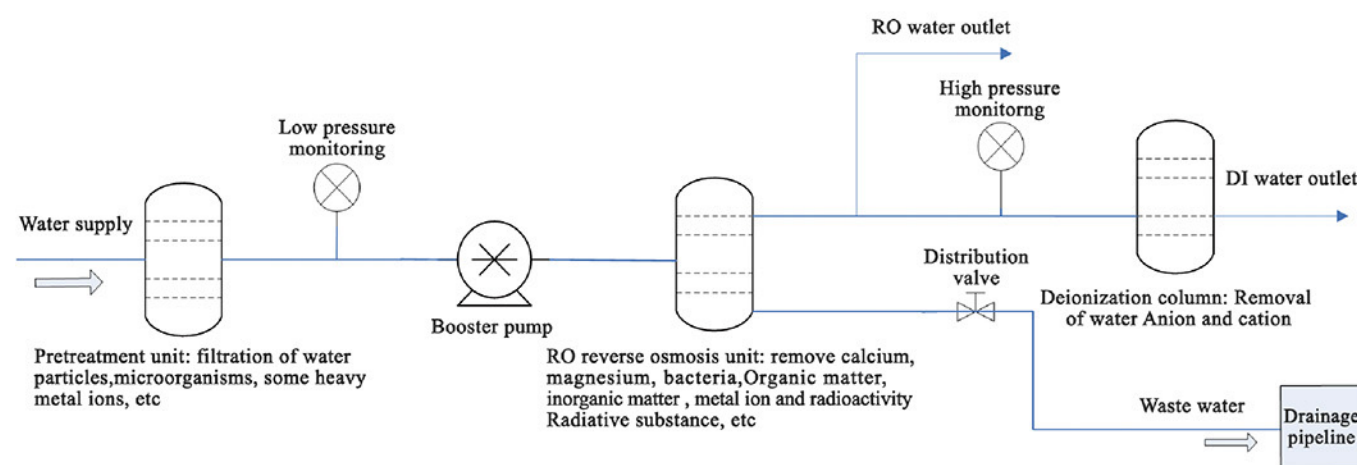


**Parameters:**

| Model | SCSJ-I-10L | SCSJ-II-30L |
|---|---|---|
| Water Output Type | RO & DI water | |
| Water Output Speed | 10L/H | 30L/H |
| Purifying Procedure | PF+AC+RO+DI | |
| Water Supply Requirement | Tap water: TDS<200ppm, 5~45°C, 1.0~3.5Kgf/cm2 | |
| Pre-treatment | 10 PP filter*1+10"Activated carbon *2 | 10"PP filter*1+10"active carbon filter*1 |
| RO Unit | 50 GPD RO membrane*1 | 300 GPD RO membrane*1 |
| Subsequent Unit | Deionization purification column*2 | Deionization purification column*1 |
| Pure Water Quality | Soluble organic matter: Rejection rate>99% (molecular weight>100) | |
| | Particle: Rejection rate>99% | |
| | Microbe: Rejection rate>99% | |
| | Salt rejection rate: >99% | |
| | TDS (total solids solubility): RO water: 5~20 ppm | |
| | Resistivity: 10-18.25MΩ.cm | |
| | PM (particulate matter)  (>0.22μm): <1/ml | |
| | Conductivity: 0.055-0.1us/cm | |
| | Microbe/Germ: <1 CFU/ml | |
| Water Quality Monitor | TDS (Total Dissolved Solids) meter | Electrical conductivity tester |
| Consumption | 46W | 113W |
| Power Supply | AC220V±10%, 50/60Hz; 110V±10%, 60Hz | |
| Standard Configuration | Main body (Include 1 set of cartridges)+TDS meter | |
| External Size (W*D*H) | 390*400*503mm | 325*403*650mm |
| Package Size (W*D*H) | 500*520*650mm | 460*420*1200mm & 670*400*260mm |
| Gross Weight | 27kg | 40kg |