

# Automatic ELISA Processor BIOBASE8001

## Introduction:

Automatic ELISA Processor BIOBASE8001 is a fully automatic detection equipment that integrates sample addition, incubation, shaking, washing, and reading. It is widely used in hospital laboratories, disease prevention and control centers, blood centers, and blood banks, animal and plant inspection and quarantine institutions, scientific research institutions, university laboratories and other places.



## Features:

- \* 8 sampling channels, 16 incubation boards, 3 washers.
- \* Adopt the principle of pressure type liquid detection.
- \* With TIP detection, clot detection function.
- \* High-precision pipetting, the lowest volume can reach 5µl.
- \* Position sensing, real-time monitoring of gripper status.
- \* Multi-spacing and multi-strength adjustable grippers can be adapted to grasp and place microplates and plate covers of different sizes.
- \* Dual thread control, can run simultaneously with the sampling arm without interfering with each other.



### Sampling Module

Disposable TIP design, high precision, zero carry-over pollution  
8 injection channels are independently controlled, and each channel runs independently in Y-Z direction.  
With liquid level detection, TIP head detection, clot detection and other detection and alarm functions.



### Smart Gripper Module

Safe, reliable, stable, efficient, fast and accurate gripper.  
With position sensing system.  
Real-time monitoring of the grabbing process to prevent falling.



### Shaking Incubation Module

16 independent temperature-controlled shaking incubation modules.  
3-level shaking.  
Temperature range: RT~60°C.  
Plate cover design to avoid strong light interference.



### Microplate Washer Module

3 independent microplate washers, 16-channel (32-pin) washer head, 5-way cleaning solution.  
Injection uniformity CV <1.5%, residual volume < 1µL/well.  
Program adjustable, applicable to microplates of different sizes.



### Microplate Reader Module

Built-in high-precision microplate reader.  
Single and dual wavelength detection, ten filter positions.  
Wide absorbance range, high sensitivity, good repeatability and strong stability.

## Technical Parameters:

Model	BIOBASE8001	
Sample & Reagent Unit	Sample Racks	12*20 push-pull sample rack with detection
	Sampling Channel	8 channels
	Liquid Level Detection	Air pressure level detection, needle blocking intelligent detection
	TIP	5 TIP racks
	Pipetting	5~1000µl, capable of parallel sampling
	Pipetting Precision	100µl: CV≤1.0%, accuracy≤2.5% 1000µl: CV≤0.5%, accuracy≤1.0%
	Reagent Position	6 reagent positions, 40 quality control positions +12 reagent bottles +25 reagent tanks (reagent tank with code identification)
Washing Unit	Washer	3 units with on plate detection function
	Washing Head	16-channel (32-pin), double row cleaning, hanging installation, with leakage recovery
	Injection Uniformity	CV<1.5%
	Washing Residual	<1µl (residual volume per well)
Reading Unit	Reading Channel	8 independent photometric channels
	Linear Range	0.000~3.000Abs
	Repeatability	CV≤1.0%
	Stability	≤±0.003Abs
	Optical Filters	4 standard filters (405, 450, 492, 630nm) Total 10 filters positions
	Reading Accuracy	≤±0.02Abs from 0.0 to 1.0 OD, ≤±0.03Abs from 1.0 to 2.0 OD
	Sensitivity	≥0.01mg/L
Incubation Unit	Channel Difference	≤0.02Abs
	Incubators	16 shaking incubators
	Cover Positions	4 (16 covers)
	Heating method	Dry heating with cover
	Shaking Function	Horizontal circular oscillation, 1~3 levels adjustable, amplitude 2.5mm
	Temperature Range	RT~60 °C
	Temperature Uniformity	±0.5°C
Data Management	Temperature Fluctuation	±0.5°C
	Software	Above Windows 7 system
	LIS System	Bi-direction, support HL7 protocol
	Results	Absorbance and results reviewable by software
Other Function	Printer	External optional
	Built-in Scanner	Optional
	Biosafety Protection	Optional (Negative pressure working zone, HEPA filter)
Working Condition	Disinfection	UV lamp
	Lighting	LED
	IAP Function	Firmware can be upgraded online at any time
Size & Weight	Power Supply	AC 100~240V, 50/60Hz
	Temperature	10~30°C
	Humidity	30~80%
	External Size (W*D*H)	Machine: 1925*824*1652mm; Base Stand: 1925*792*777mm
	Package Size(W*D*H)	Machine: 2095*950*1160mm; Base Stand: 2095*950*1005mm Accessories: 1560*930*530mm
Size & Weight	Net Weight	Machine: 320kg; Base stand: 153kg; Accessories:68kg
	Gross Weight	Machine: 420kg; Base stand: 245kg; Accessories: 122kg