

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 5 μ l.
- * 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 < 1 μ L/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	5~1000 μ l, capable of parallel sampling
	Pipetting Precision	100 μ l: CV $\leq$ 1.0%, accuracy $\leq$ 2.5% 1000 μ l: CV $\leq$ 0.5%, accuracy $\leq$ 1.0%
Washing Unit	Reagent Position	6 reagent positions, 40 quality control positions +12 reagent bottles +25 reagent tanks (reagent tank with code identification)
	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%
Reading Unit	Washing Residual	<1 μ l (residual volume per well)
	Reading Channel	8 independent photometric channels
	Linear Range	0.000~3.000Abs
	Repeatability	CV $\leq$ 1.0%
	Stability	$\pm$ 0.003Abs
	Optical Filters	4 standard filters (405, 450, 492, 630nm) Total 10 filters positions
Incubation Unit	Reading Accuracy	$\pm$ 0.02Abs from 0.0 to 1.0 OD, $\pm$ 0.03Abs from 1.0 to 2.0 OD
	Sensitivity	$\geq$ 0.01mg/L
	Channel Difference	$\leq$ 0.02Abs
	Incubators	16 shaking incubators
	Cover Positions	4 (16 covers)
	Heating method	Dry heating with cover
Data Management	Shaking Function	Horizontal circular oscillation, 1~3 levels adjustable, amplitude 2.5mm
	Temperature Range	RT~60 °C
	Temperature Uniformity	$\pm$ 0.5°C
	Temperature Fluctuation	$\pm$ 0.5°C
	Software	Above Windows 7 system
	LIS System	Bi-direction, support HL7 protocol
Other Function	Results	Absorbance and results reviewable by software
	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
	Power Supply	AC 100~240V, 50/60Hz
Size & Weight	Temperature	10~30°C
	Humidity	40~70%
	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
	Net Weight	Machine: 320kg; Base stand: 153kg; Accessories:68kg
	Gross Weight	Machine: 420kg; Base stand: 245kg; Accessories: 122kg