Automatic ELISA Processor BIOBASE2001

Introduction:

Automatic ELISA Processor BIOBASE2001 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:

①. Adopt the principle of pressure type liquid detection.
②. With TIP detection, clot detection function.
③. High-precision pipetting.
④. Position sensing, real-time monitoring of gripper status.
⑤. Multi-spacing and multi-strength adjustable grippers can be adapted to grasp and place microplates and plate covers of different sizes.
⑥. 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
2 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
8 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
2 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

Parameters:

Model		BIOBASE2001
Sample& Reagent Unit	Sample Racks	6*20 push-pull sample rack with detection
	Sampling Channel	2 channels
	Liquid Level Detection	Air pressure level detection, clot detection function
	TIP	1000μl, 3 TIP racks
	Pipetting	10μl~1000μl
	Pipetting Precision	100μl: CV≤1%, Accuracy≤2.5% / 1000μl: CV≤0.5%, Accuracy≤1%
	Reagent Position	4 Reagent racks, reagent tanks with detection
Washing Unit	Washer	1 unit
	Washing Head	16-channel (32-pin), double row cleaning, hanging installation, with leakage recovery
	Injection Uniformity	CV < 1.5%
	Washing Residual	<1μl
Reading Unit	Reading Channels	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
	Channel Difference	≤0.02Abs
Incubation Unit	Incubators	8 shaking incubators
	Cover Positions	1 (8 covers)
	Heating Method	Dry heating with cover
	Shaking Function	Horizontal circular oscillation, 1-3 levels adjustable, amplitude 2.5mm
	Temperature Range	RT to 60 °C
	Temperature Uniformity	0.5℃
	Temperature Fluctuation	±0.5℃
Data Management	Software	Above Windows 7 system
	LIS System	Bi-direction, support HL7 protocol
	Results	Absorbance and results reviewable by software
	Printer	External optional
	Built-in Scanner	Optional
Other Function	Biosafety Protection	Optional (Negative pressure working zone, HEPA filter)
	Disinfection	UV lamp
	Lighting	LED
	IAP Function	Firmware can be upgraded online at any time
Working Condition	Power Supply	AC220V±10%,50/60Hz(Standard); 110V±10%,60Hz(Optional)
	Temperature	10~40℃
	Humidity	30~80%
Size & Weight	External Size (W*D*H)	1275*750*1650mm
	Net Weight	330kg
	Package Size(W*D*H)	Machine: 1445mm*1130mm*920mm / Base Stand: 1445mm*1005mm*920mm / Accessories: 1065mm*510mm*895mm
	Gross Weight	Machine: 220kg; Base stand: 125kg; Accessories: 30kg