▶ Immune 4500

Software Control / user-friendly

- Simple GUI (Graphical User Interface). Users are guided in a step-by-step produce to prepare the worktable, select their assays and start the run.
- Bidirectional interface allows the integration into a LIMS for transferring job lists and results.
- Customization of test item: In the same batch of samples to be tested, each sample can be customized with different test items.
- History log file and comprehensive QC program. analyzing data in and between plates, L-J QC charts, etc.

Innovative features of Immune 4500

- Microplate insertion function: the experimental microplate can be inserted at any time and at any step, and the results and the sample loading information are automatically associated.
- Microplate-pooling function: multiple test items in same testing procedures can be assigned stimultaneoulsy within the same plate.
- Gripper alarm function: gripper torque sensing function can automatically monitor the working status of the gripper. When the microplate or lid is not caught, it alarms automatically with a dialog box and sound and light alarm.

▶ Specifications

Model	Immune 4500				
Application	Automated ELISA testing, including sample distribution, reagents pipetting, shaking, incubating, washing, reading, and etc.				
Sample positions	96	Arms	2	Sampling channels	8
Disposable tips	Yes	Liquid level detection	Yes	Clot detection	Yes
Pipetting precision	Specification 1000μL	Pipetting volume 1μL 1000μL		Precision (CV%) ≤ ±8% ≤ ±1%	Accuracy ≤ 10% ≤ 1%
Pipetting speed positions	Sample parallel distribution speed: ≤120 sec/96-well plate Reagent continuous distribution speed: ≤50sec/96-well plate.				
Microplate positions	4				
Barcode identification	Auto scanning of tubes and microplates, varied barcodes available. Scanning speed: 40 sec/96 tubes, 10 sec/96-well plate.				
Reagent module	Multiple reagent positions can be set flexibly, and specific reagent positions can be identified. automatically with Hall detection principle.				
Incubators/ shakers	The microplate positions integrate incubating and shaking functions together. Each microplate has independent incubating and shaking function. Adjustable temperature ranges from room temperature to 70°C with precision ±0.4°C. Adjustable shaking time 0~240 mins with 20 level shaking frequency.				
Microplate washer	1				
	Capacity: 50-3000μL, Each wahser with 16 probes, 0~9 wash cycles, 2~8 wash buffer Variable soak time dispensing volumes, and wash modes. Residual volume of wash buffer ≤ 1μL per well.				
Microplate reader	1				
	Wavelength range is 400~750nm with single or dual wavelength measurement. Light filter: 405nm, 450nm, 492nm and 620nm as standard configuration or customized. OD range is 0.000~4.000 with sensitivity 0.001, repeatability ±0.005OD, stability 0.005OD.				
Software	Graphical User Interface, available to connect to LIS/HIS system for bidirectional communication.				
Dimension	2000x880x1300mm				
Weight	150kg				
Environmental conditions	Temperature: 15~32°C Humidity: 30%~80%		Electric supply requirements	Voltage: 100~240VAC Frequency: 50/60HZ	

Ultrassay BioTech Co., Ltd.

- RM3018 Poly D9, No. 999 Luzhou Avenue, Baohe District, Hefei, Anhui, China
- +86-551-62881663
- info@ultrassay.com
- http://ultrassay.com

ultrassay

Immune 4500

Automated ELISA System

Ultrassay BioTech Co., Ltd.

▶ Immune 4500

Immune 4500 is a dedicated system to automate microplate-based ELISA tests and deliver accurate results with high efficiency. adopting the modular automation concept, Immune4500 equips with liquid handing module, incubation module, plate washing module, microplate readers, flexible mechanical grippers to transfer microplates between modules, an intelligent software control.

▊ Standard Specifications

192	sample positions
1	working cabinet
2	arm
2	sampling probe
2	microplate positions
1	microplate washer
1	microplate reader

Liquid handling module / fast and precise pipetting

- Automating sample distribution, sample predilution, reagent pipetting etc.
- Use of high-quality disposable tips, zero carryover.
- Two specifications of disposable tips, 250μL and 1000μL, sample volume could be 1~1000μL.
- Parallel pipetting for rapid sample distribution in multiple plates.
- Using sensitive pressure-sensing clot detection and liquid level detection technology.
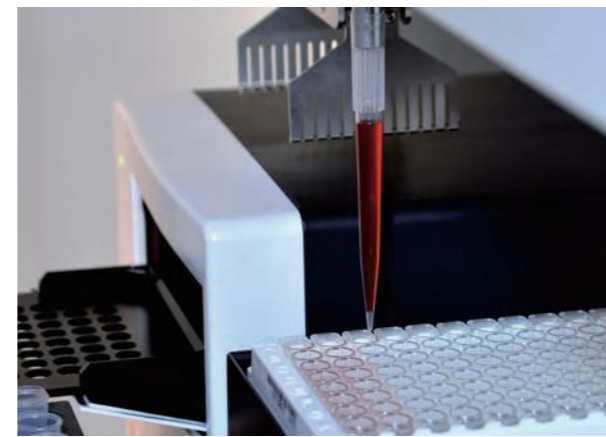
Incubation Module / accurate and stable temperature control

- The functions of pipetting, shaking and incubation are integrated together on the micorplate position to improve processing speed.
- Independent incubator in each microplate position for flexible and reliable temperature control.
- Blanket-type heating method, only 1 minute to reach the setting temperature.
- Multi-point monitoring technology, ensures stable temperature.

Plate Washing Module / flexible and intelligent washing control

- 16 wash channels with 32 probes in total, the long probes for liquid absorbing and the short probes for liquid injection.
- Adjustable wash modes, soak time, dispensing volumes, and etc.
- Residual volume of wash buffer ≤1μL per well.
- Hanging washer head allows easy maintenance.

Microplate Reader / reliable interpretion

- Self-developed microplate reader.
- Wavelength range is 400~750nm with single or dual wavelength measurement.
- Automatic switching of multiple filters.
- Comprehensive measurement methods (qualitative, quantitative, rate method and kinetics) meet the needs of different applications, providing fast and accurate interpretation.