



electra ATOM

Single Channel Fully Automated Microwell CLIA Analyzer

KEY FEATURES

CAPS: Common Assay Protocol Strategy

Tests with Common Assay Protocol can be processed simultaneously and facilitates Faster Turn Around Time. CAPS Group1 - T3, T4, TSH, ft3, ft4, UTSH, LH, FSH, PRL

Multiple Samples, Multiple Test Simultaneously

One sample with multiple tests or multiple samples with different test under CAPS can be process simultaneously. This facilitates Faster Turn Around Time.

Turnaround time

CAPS Group 1- 30 + 10 mins

CAPS Group 2- 45 + 10 mins

With Shorter assay procedures multiple testing batches can be processed in a day

Throughput

Approx 60T/Hour

T3+T4+TSH 32 Samples = 70 mins

T3+T4+TSH+LH+FSH+PRL 16 Sample=72 mins

Calibration Recycle

Flexibility to use Saved calibration curve and perform the test

Original reagent Vial loading facility

Ease of use – Electra Reagent Vials can be loaded directly onto the system making it more convenient for user.

PC Connectivity

User-friendly for data entry and Unlimited Data Storage

Calibration Review Facility

Patient Data Management

TECHNICAL SPECIFICATIONS

Operating Conditions	
Operating environment	Temperature: 15~35C Relative Humidity: 30~80%
Power supply	220V, 50 to 60 Hz
Parameters of pipetting device	
Pipetting needle	1-channel independent pipetting
Pipetting head	Non-conductive, disposable tips. The use of disposable tips can avoid sample carryover & liquid dilution effect.
Pipetting precision & accuracy	Better than 1 % CV at 10 % syringe volume, based on gravimetric evaluation
Analysis capacity	12-different parameters in a single plate.
Pipetting volume	1 ~ 700µL
Liquid level monitoring	Liquid level monitoring function is provided.
Pre-dilution	Several pre-dilution modes are available for selection, multiple-proportion serial dilution is adopted.
Pipetting principle	Principle of air displacement pipetting is employed, without contamination of liquid in tube or system.

Alarm	Retry, Ignore, shut down & other processing modes processing are optional, which will not affect operation of the whole test.
Shaker-incubator	
Shaker	The software is divided into 4 levels, the shaking speed is selectable.
Incubation	The heating temperature is kept at the set temperature (generally 37°C)±1°C, step : 0.1°C
Washer	
Manifold Type	8 well washer
Manifold Needles	8-way dispensing channels & 8-way aspiration channels (16 pins)
Plate Type	Flat, U and V shaped bottom
Wash Cycles	Programmable
Soak Time	Programmable
Residual Volume	Less than 2µl per well
Number Of Wash Buffer Bottles	2 (1 wash buffer bottle + 1 distilled water bottle)
Reader	
Background value	RLU value of blank CLIA plate, maximum value of the entire plate ≤0.05
Measurement system	Counter type PMT for glow luminescence measurements.
Measurement range	0 to 2.0 x 10 ⁷ RLU
Measurement increment	1 RLU (Relative light units)
Background signal	≤ 100 RLU @25°C
Crosstalk	≤ 5 x 10 ⁻⁵
Linear range	0 to 2 x 10 ⁷ RLU
Linearity	≥99% coefficient of correlation
Precision CV	< 3 %
Worktable	
Worktable capacity	2 Plates (1 testing plate position & 1 dilution plate position)
Sample position	36 positions
Reagent position	Multi-functional carrier module can accommodate original reagent bottles.
Tip removing position	Eject tips in a closed manner

LIST OF STANDARD COMPONENTS SUPPLIED ALONG WITH THE INSTRUMENT

Components	Qty	Components	Qty
1. Pipette arm (1-channel,disposal tips)	1 No.	13. Reagent Rack(4 position)	2 Nos.
2. Incubation position	1 No.	14. Washer	1 No.
3. CLIA Reader	1 No.	15. Testing plate holder	1 No.
4. Sample tube/ Control/Standard rack (Holding 12 tubes each)	4 Nos.	16. Reagent Tank 30ml	2 Nos
		17. Disposable tip box (Holding 96 tips)	2 Nos.
5. Calibrator vial/ Reagent bottle holder stand	1 No.	18. Deep well dilution plate	1 No.
6. Control/Standard tubes	40 Nos	19. 4000 ml Bottle with tubing & sensor*	1 No.
7. Disposable tips waste tray	1 No.	20. 4000 ml Bottle with tubing & sensor	2 Nos.
8. Bottle holder assembly	1 No.	21. CAN Card cable (Instrument--Bottle holder)	1 No.
9. Manifold 16 needle	1 No.		
10.Disposable tips 300µl	1000 Nos	22. CAN Card cable (PC--Instrument)	1 No.
11.Reagent container 5ml	10 Nos	23. Instrument power cable	1 No.
12.Reagent container 10 ml	10 Nos	24. 4 pin MRS connector(12V/24V)	1 No.

* For waste water

ACCESSORIES/CONSUMABLES FOR USE WITH ELECTRA ATOM

Accessories/ Consumables	Cat No.	Pack Size
Disposable tips 300µl	810T3001000	1 x 1000 Pcs