

# Chemiluminescence Immunoassay System

## CLIA-3800M



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

## ▶▶ OUTSTANDING TECHNOLOGY POWER OF v

### ▶▶ Chemiluminescence Immunoassay (CLIA) System

CLIA uses two important technologies, one is labeling technology which determines reaction mode; and the other is separation technology which determines the sensitivity, accuracy and precision of the reagents.

### ▶▶ Labeling Technology

Two types of labeling technologies are commonly used. One is enzyme label and the other is non-enzyme small molecule label. Enzyme label reagents are not so stable and are easily affected by the change of storage conditions. CLIA system applies ABEI labels. ABEI is a non-enzyme small molecule with special molecular formula to enhance stability in acid and alkaline solution. As fast chemiluminescence, ABEI chemical reaction with sodium hydroxide (NaOH) and Hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) finishes the process in 3 seconds.

### ▶▶ Separation Technology

CLIA uses Magnetic Microbeads. As separation technology, it has been widely used in the field of CLIA. Compared with traditional separation technology, it has the following advantages:

- Shortening the reaction time by enlarging the reaction area of antigens and antibodies.
- Enhancing the sensitivity by better and faster capture of antigens and antibodies.
- Reducing inter or intra-assay discrepancies significantly by mixing the reagents thoroughly in a liquid separation platform.
- Enhancing the accuracy by absorbing antigens and antibodies through chemical reaction.

### ▶▶ ADVANTAGE OF CLIA-3800M

- For small and middle size labs or hospitals
- Simple, Smart, Humanization designed model
- More than enough test menu to meet the different needs and it will be extended according to your requirement
- Free Quality Control and calibrator helps to reduce the Cost Per Test
- Quality guarantee by the Third party quality control and External Quality Assessment (EQA)
- key technology ABEI and Nano magnetic microbead enhances stability and sensitivity of CLIA reagents



▶▶ **CLIA-3800M**

- Integrated design and humanized appearance
- Simple and smart operation
- Compact size and weight

**Pipettor**

- Aspirate reagent/sample with high speed
- Titanium needle for crushproof
- Clot detection & liquid level detection
- Coated with TEFLON to prevent carry-over
- Inner & external washing

**Chamber**

- High-sensitivity and low-noise PMT
- Cuvettes detection and anti-overflow

**Washer**

- Strong magnetic field helps better separation
- Three pairs of washing needles with anti-overflow function

**Reagent area**

- Up to 9 reagents on board with RFID
- RFID label Storing reagent information
- Easy and fast for adding and updating
- RFID tag, high reliability

**Incubator**

- 13 Incubate slots (78tests at the same time)
- The temperature is 36.8 C ± 0.5 C

**Automated cuvette loader**

- Up to 40 modules of 240 tests
- Continuous loading

**Sample area**

- Up to 40 sample on board with barcode
- Continuous loading & cooling function

▶▶ **OPERATION SOFTWARE**



## ▶▶ Comprehensive software

- User-friendly Interface
- Real-time status monitoring for each test
- Monitoring reagent and consumable status
- intelligent alarm function

## ▶▶ Quality control

- westgard rules and Levey-Jennings chart for both internal and external quality control

## ▶▶ Pre or post defined dilution Function

- Pre or post defined dilution flexibly if high concentration is met

## ▶▶ Maintenance Guide

- Daily, weekly and monthly maintenance guide for analytical unit
- Ensure performance reliability

## ▶▶ Test Summary Function

- Test summary including system test, calibration, QC, statistics of samples, valid tests and rerun tests
- Search and review test information conveniently

## ▶▶ Connect to LIS ( bidirection )

- Bidirection, Lis can connect by online and ASTM

## ▶▶ TEST MENU

### Bone Metabolism

Intact PTH  
 Calcitonin  
 Osteocalcin  
 25-OH Vitamin D

### Glyco Metabolism

C-Peptide  
 Insulin  
 ICA  
 IAA(Anti Insulin)  
 Proinsulin  
 GAD 65  
 IA-2

### Anemia

Vitamin B<sub>12</sub>  
 Ferritin  
 Folate

### Fertility

FSH  
 LH  
 HCG/ $\beta$ -HCG  
 PRL  
 Estradiol  
 free Estriol  
 Progesterone  
 Testosterone  
 free Testosterone  
 DHEA-S  
 17-OH Progesterone  
 \*AMH  
 \*SHBG  
 \*Androstenedione

### Drug Monitoring

Cyclosporine A  
 Tacrolimus, FK 506  
 Digoxin

### Thyroid

TSH(3rd Generation)  
 T<sub>4</sub>  
 T<sub>3</sub>  
 FT<sub>4</sub>  
 FT<sub>3</sub>  
 Tg(Thyroglobulin)  
 TGA(Anti-Tg)  
 TRAb  
 TMA  
 Anti-TPO  
 Rev T<sub>3</sub>  
 Intact PTH

### Prenatal Screening

cAFP  
 free  $\beta$ -HCG  
 PAPP-A  
 HCG/ $\beta$ -HCG  
 free Estriol

### Tumor Markers

Ferritin  
 AFP  
 CEA  
 Total PSA  
 f-PSA  
 CA 125  
 CA 15-3  
 CA 19-9  
 PAP  
 CA 50  
 CYFRA 21-1  
 CA 242  
 CA 72-4  
 NSE  
 S-100  
 SCCA  
 TPA-ATL  
 Pepsinogen I  
 Pepsinogen II  
 Gastrin-17  
 H.pylori IgG  
 $\beta_2$ -MG  
 HCG/ $\beta$ -HCG  
 Calcitonin  
 Tg(Thyroglobulin)  
 Proinsulin  
 \*proGRP  
 \*AFP-L3

### Infectious Disease

HBsAg  
 Anti-HBs  
 HBeAg  
 Anti-HBe  
 Anti-HBc  
 Anti-HCV  
 Syphilis  
 Chagas  
 HTLV I/II  
 Anti-HAV  
 HAV IgM  
 HIV p24 Ag  
 HIV Ab/Ag combi

### TORCH

Toxo IgG  
 Toxo IgM  
 Rubella IgG  
 Rubella IgM  
 CMV IgG  
 CMV IgM  
 HSV-1/2 IgG  
 HSV-2 IgG  
 HSV-1/2 IgM

### EBV

EBV EA IgG  
 EBV EA IgA  
 EBV VCA IgG  
 EBV VCA IgM  
 EBV VCA IgA  
 EBV NA IgG  
 \*EBV NA IgA

### Inflammation Monitoring

hs-CRP  
 PCT(Procalcitonin)

### Immunoglobulin

IgM  
 IgA  
 IgE  
 IgG

### Hepatic Fibrosis

HA  
 PIIIP N-P  
 C IV  
 Laminin  
 Cholyglycine

### Kidney Function

$\beta_2$ -MG  
 Albumin

### Autoimmune

TGA(Anti-Tg)  
 TRAb  
 TMA  
 Anti-TPO  
 ICA  
 IAA(Anti Insulin)  
 GAD 65  
 IA-2  
 \*Anti-CCP  
 \*Anti-ds DNA  
 \*Anti-Sm  
 \*Anti-Ribosomal-P  
 \*ANA  
 \*ENA  
 \*Anti-Scl-70  
 \*Anti-CENP-B  
 \*Anti-Jo-1  
 \*Anti-M2  
 \*Anti-Histone  
 \*Anti-RNP  
 \*Anti-SSB  
 \*Anti-SSA

### Cardiac

CK-MB  
 Troponin I  
 Myoglobin  
 NT-proBNP  
 Aldosterone  
 Angiotensin I  
 Angiotensin II  
 D-Dimer  
 LP-PLA2  
 hs-cTnl  
 hs-CRP  
 \*Direct Renin  
 \*H-FABP

### Others

GH(hGH)  
 IGF-1  
 Cortisol  
 ACTH

## ►► Technical Specifications

<b>Reagent Feature</b>	Flash Chemiluminescence label-ABEI,with high sensitivity and long stability
	Nano magnetic microbeads separation, fast and efficient
<b>Main Features</b>	Throughput: up to 180 tests/hour
	24 hours ready to use
	Time o first result: 17minutes
<b>Modes of Operation</b>	Random, Batch and STAT
<b>Sample Loading</b>	Up to 40 sample tubes
	Continuous loading, STAT available
	Barcode reader recognition or analyzer auto numbered
	LIS connection, auto read sample info
	Refrigerated sample area with independent power supply
<b>Reagent Loading</b>	9 reagents on board
	Continuous loading
	RFID readind all info of reagent
	Refrigerated reagent area
<b>Reagent Integral</b>	Ready-to-use, no pretreatment required
	Inclu`ding calibrators
	RFID tag storing all info of reagent
	RFID tag with built-in master curve
	2-point calibration to adjust master curve
	Calibration stability: Max 4 weeks
<b>Other Features</b>	Clot detection
	Liquid level detection
	Auto and optional ratio for high sample dilution
	Constant 37°C incubation
<b>Operation System</b>	Windows 7
	Dell compatible (Dual-core CPU)
	Color touch screen
<b>Interconnection</b>	Bi-communication with LIS via ASTM protocol
<b>Dimensions Weight</b>	Input:AC 110-230V,50/60 Hz,Max 630W
	Dimension and Weight: 102*72*56cm 73kg

## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



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Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

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Liquid Partical  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
Hematology  
Analyzer



Micro Plate  
Reader/Washer



URINOVA 2800  
Urine Analyzer



Total Organic  
Carbon 3800



Fully Automated  
CLIA



NOVA-2100  
Chemistry Analyzer



PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system

## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



# Analytical Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

## Reach us @



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