

# Automatic Biochip Analyzer



High-integrated chemiluminescent Biochip technology.



Patented cleaning technology, eliminate cross-contamination.



Original tube load, barcode scanning identification, full-automatic operation.



Independent temperature control system with stable results.



Flexible switch between multiple modes, results intelligent analysis.



Faster detection speed with microsample need.

#### THE TEST ITEMS

Tumor markers Cardiac markers Infection markers Autoantibody markers Allergens, etc.











#### SLXP-001B



Instrument Size: 1500mm\*900mm\*1200mm Weight: 400kg, Vertical machine

#### PRODUCT FEATURES

- Sample loading: 60 samples, can be loaded continuously.
- Chip amount: 130 copies.
- Reagent slot: 18 positions, Refrigeration function available.
- Detection items: Tumor markers, Autoantibody markers, Allergens.
- **Throughput:** Tumor markers chip reagent detection speed is 720T/H, Allergens chip reagent detection speed is 1380T/H.
- Applicable Departments: Medical Examination Center, Laboratory Department, Central Lab, Nuclear Medicine Department, Special Inspection
  Department, Biochemical Department, Bio-Therapy Center, Oncology
  Department, etc.

Interact with LIS system.

#### **SLXP-005**

#### **PRODUCT FEATURES**

- Sample loading: 30 samples, can be loaded continuously, with priority to emergency cases.
- Chip amount: 100 copies.
- Reagent slot: 8 positions, Refrigeration function available.
- Detection items: Tumor markers, Cardiac markers, Infection markers, Autoantibody markers, Allergens.
- Throughput: Tumor markers chip reagent detection speed is 360T/H, Allergens chip reagent detection speed is 690T/H.
- Applicable Departments: Laboratory Department, Central Lab, Nuclear
   Medicine Department, Bio-Therapy Center, Medical Examination Center, etc.

Sunlane

Instrument Size: 1050mm\*780mm\*780mm Weight: 150kg, Desktop

Interact with LIS system.

#### SLXP-002C



Instrument Size: 580mm\*530mm\*500mm Weight: 60kg, Desktop

#### **PRODUCT FEATURES**

- Sample loading: 5 samples, can be loaded continuously, with priority to emergency cases.
- Chip amount: 13 copies.
- Reagent slot: 8 copies.
- Detection items: Tumor markers, Cardiac markers, Infection markers, Autoantibody markers, Allergens.
- **Detection Time:** First result of 7 Cardio-pulmonary functions reported within 15 mins, results are printed automatically once available, save the time of waiting.
- Throughput: Cardio-pulmonary reagent detection speed is 280T/H.
- Applicable Departments: Laboratory Department, Central Lab, Nuclear Medicine Department, Bio-Therapy Center, Medical Examination Center, Clinical Department, etc.

Interact with LIS system.





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# Sunlant 三联生物

Multiple Tumor
Markers Reagent Kit

Microarray Chemiluminescence Immunoassay

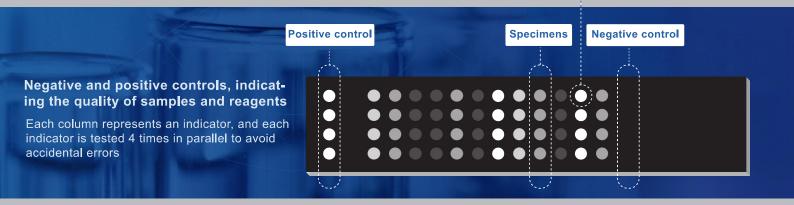


Based on the hard matrix microarray chemiluminescence immunoassay technology, coupled with a fully automated Biochip reader to establish a fast, efficient, quantitatively accurate, and analytically superior fully automated detection platform.



ponds are firm

- Smooth chip surface and thorough cleaning of interfering substances.
- Multiple invention patents to ensure that there is no carry-over contamination between Specimens and Reagents during testing.



#### **Detection principle**

Based on the double antibody sandwich chemiluminescence immunoassay method, this product consists of a hard matrix microarray chip, reaction solution (HRP enzyme) labeled antibodies, negative/positive controls, calibrators, and other reaction reagents. The tumor marker antibodies are covalently linked to the hard matrix chip and bind to the corresponding tumor markers in the serum to form an antibody-antigen-enzyme-labeled antibody complex with the enzyme-labeled tumor marker antibodies after cleaning and binding.

HRP enzyme catalyzes the luminescence substrate to produce a light signal, which is imaged by CCD, and reads the grayscale values of the light signal. The computer software reads the grayscale values of the light signals of each index, automatically calculates the corresponding concentration of tumor markers in the detection sample using the standard curve formed by the grayscale value of the light signal and the antigen concentration.

#### **Corresponding Test Kit**

Product Name	Markers
Twelve Tumor Markers Detection Kit (Male)	CA19-9, CA125, CA72-4, PSA, Free-PSA, NSE, AFP, CEA, Cyfra21-1, PG I , PG II, Pro-GRP
Twelve Tumor Markers Detection Kit (Female)	CA19-9, CA125, CA72-4, CA15-3, β-HCG, NSE, AFP, CEA, Cyfra21-1, PG I , PG II, Pro-GRP
Six Tumor Markers Detection Kit	CA19-9, CA125, CA72-4, AFP, CEA, Cyfra21-1
Seven Tumor Markers Detection Kit(A)	CA19-9, CA125, CA72-4, CEA, Cyfra21-1, PG I , PG II
Seven Tumor Markers Detection Kit(B)	CA19-9, CA125, CA724, NSE, CEA, Cyfra21-1, Pro-GRP



Detection of the tumor-prone group, auxiliary differential diagnosis, disease detection, Mainly used for therapeutic evaluation, prognostic assessment, and detection of recurrence and metastasis in tumor patients.

#### **Product advantages**



#### High throughput

Joint detection of multiple tumor markers, with fast detection speed (720T/H).patients.





# Intelligent interpretation software



#### High accuracy

Mainstream chemiluminescence method, high sensitivity, wide linear range, and excellent repeatability, with negative and positive controls for each test.



#### Cost-effective

Multi-indicator tests are integrated into one chip to reduce costs and save workload.



#### Clinical application department

Physical Examination Center, Oncology Department, Respiratory Department, Gastroenterology Department, Thoracic Surgery Department, General Surgery Department, Gynecology Department, Geriatrics Department, etc.

#### Indicator parameters and clinical significance

Tumor Markers	Unit	CUTOFF Value	Linear Range	Hepato- cellular carcinoma	Lung Cancer	Gastric Cancer	Esophageal Cancer	Colorectal Cancer	Pancreatic Cancer	Prostatic Cancer	Breast Cancerr	Cervical Cancer	Ovarian Cancer
Pepsinogen (PGI/PGII)	ng/mL	30	6-300/2-200		1	•							
β-Human Chorionic Gonadotropin (β-HCG)	ng/mL	3	0.6-200		11							•	0
Pro-gastrin releasing peptide (pro-GRP)	ng/mL	0.1	0.03-5		•								
Carcino embryonic antigen (CEA)	ng/mL	5	1-300	0	•	•	•	•	0		0	•	0
Alpha-fetoprotein (AFP)	ng/mL	20	3-1000	•								i de la la	0
Prostate specific antigen (F-PSA/PSA)	ng/mL	1/4	0.2-100/1-300							•			
Neuron specific enolase (NSE)	ng/mL	13	2.6-300		•								
Cytokeratin 19 fragment (CYFRA 21-1)	ng/mL	3.3	0.65-200	0	•		0					•	
Carbohydrate antigen (CA125)	U/mL	35	3.5-3000	0	0	0	0		0		0		•
Carbohydrate antigen (CA19-9)	U/mL	35	7-2000	0	0	0	0	0	•				
Carbohydrate antigen (CA72-4)	U/mL	6.9	1.35-400	0	0	•	0		0				
Carbohydrate antigen (CA15-3)	U/mL	35	7-300								•		0

Main Markers
 Auxiliary Markers





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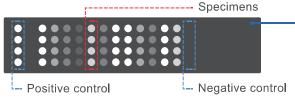
# Cardiopulmonary Function ABOUT THE (Myocardial Markers) Reagent Kit

# **Microarray Chemiluminescence Immunoassay**

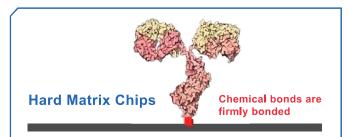
# **Detection principle**

# Chemiluminescence double-antibody sandwich assay

Each column represents an indicator, and each indicator is tested 4 times in parallel to avoid accidental errors.



\*Negative and positive controls, indicating the quality of samples and reagents



#### Chip Matrix - Specially Activated Hard Matrix Slides

Smooth chip surface and thorough cleaning of interfering substances.

Multiple invention patents to ensure that there is no carry-over contamination between Specimens and Reagents during testing.

#### Product advantages

A chip to quickly identify the critical causes of chest pain

#### **Precision**

- ① Chemiluminescence method with high sensitivity, able to detect picogram-level markers;
- (2) High precision:
- 3 High accuracy, 4 parallel tests for each indicator, with negative and positive controls set per test to reduce errors.

#### Rapid

Capable of Point of care test, with a detection speed of up to 420T/H, continuous sample loading, and reports available in 15 minutes.

#### Convenient

Capable of whole blood and plasma detection, with one-step reaction that is easy to operate.

#### Comprehensive

Identify the critical causes of chest pain such as heart failure, myocardial infarction, pulmonary embolism, aortic dissection, and infection; capable of preliminary screening of causes and therapeutic monitoring.

# Product Name Markers Cardio-pulmonary Function Reagent Kit Cardiac Markers Reagent Kit CTnl、MYO、CK-MB、H-FABP、NT-proBNPD-Dimer、PCT

### Cardiopulmonary Function (Myocardial Markers) Reagent Kit



#### Quickly identify the critical causes of chest pain

#### Etiology of chest pain

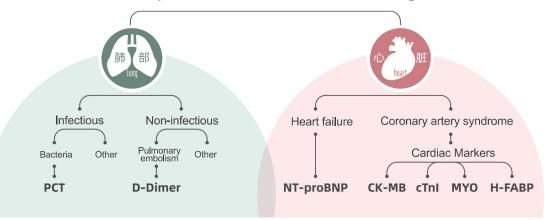
Chest pain and shortness of breath (SOB)/difficulty breathing often occur together, making it a challenge for clinicians to evaluate patients.

Due to the diverse potential causes of chest pain and common clinical symptoms, it could be a life-threatening emergency such as acute coronary syndrome (ACS) and acute heart failure (HF), or a pulmonary disease such as lung infection, pulmonary embolism (PE), etc. Biomarker testing has been shown to aid in efficient triage and improve management of

#### The Expert Consensus Group on Combined Testing of Biomarkers for Acute Non-Traumatic Chest Pain published in the Chinese Journal of Emergency Medicine, Vol. 24, No. 9, September 2015

Acute chest pain is one of the common reasons for adult emergency department visits. According to statistics, there were over 7 million chest pain patients seeking emergency department treatment in the United States in 2010, accounting for 5.4% of all emergency department visits. A cross-sectional study in Beijing showed that patients with chest pain accounted for 4.7% of emergency department visits. The etiology of acute chest pain is complex, and the disease spectrum ranges from life-threatening high-risk diseases such as acute coronary syndrome (ACS), acute aortic dissection (AAD), pulmonary embolism (PE), and tension pneumothorax, to relatively low-risk diseases such as gastroesophageal reflux, intercostal neuralgia, and neurosis. In clinical practice, emphasis should be placed on "early diagnosis, risk stratification, correct triage, and scientific treatment".

#### The diagnostic role of serum biomarkers in the etiology of chest pain Chest pain/shortness of breath/fever/cough



#### **Intended Uses**

Early, rapid, and comprehensive screening for the causes of chest pain and chest tightness;

Clinical identification and efficacy evaluation of myocardial infarction, heart failure, pulmonary embolism, and infection

#### Applicable to (Departments)

Emergency Department, ICU, CCU, Cardiology Department, Respiratory Department, Geriatrics Department, Cardiothoracic Surgery Department, etc.





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# Procalcitonin and C-creative Protein Reagent Kit

# Microarray Chemiluminescence Immunoassay

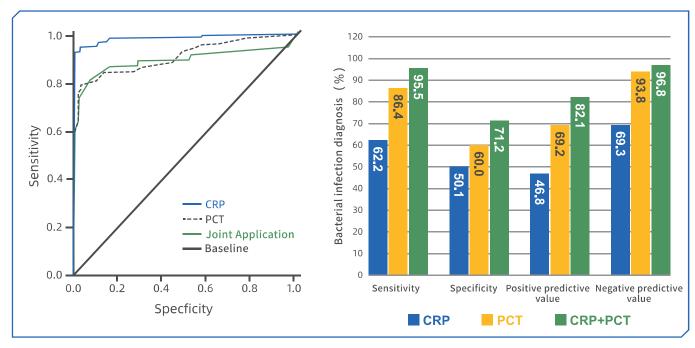
#### **Product advantages**

- 1. Fast, results reported automatically in 15 minutes.
- 2. The joint detection greatly improves the specificity and sensitivity of clinical bacterial infection diagnosis and requires a small sample size.
- 3. Timely diagnosis of the type of infection, guiding clinical treatment according to the symptoms.
- 4. Joint monitoring is more helpful in observing the progression and prognosis of the disease.

Detection Indices Product Name	Markers
Procalcitonin and C-creative Protein Reagent Kit	PCT. CRP

#### **Intended Uses**

- 1 Differentiation between bacterial infection and viral infection.
- 2 Assessment of the severity of infection.
- 3 Guidance and monitoring of antibiotic use.
- 4 Differentiation between SIRS, sepsis, and septic shock.



A.P.Yang,Q.W.Zhang,J.YE and F.QU.Combined use of PCT,CRP and WBC to improves the sensitivity for the early diagnosis of neonatal pneumonia. Chin J Health Lab Tec. 2015.25(5):694-696

# **Procalcitonin and C-creative Protein** Reagent Kit



#### **Applicable to (Departments)**

ICU, Emergency Department, Burns Surgery, Infection Department, Respiratory Department, Oncology Department, Pediatrics Department, Fever Clinic, etc.

#### Indicator parameters and clinical significance

Marker	s Unit	Linear Ra	ange		Clinical Significance						
			< 0.1		Highly unlikely in bacterial etiology	Strongly recommend against the use of antibiotics					
PCT ng/mL	0.2-100	0.	.1~0.25	Low probability of bacterial etiology	Recommend using antibiotics in conjunction with clinical judgment						
101	PCI IIII U.2-100	0.2 100	0.	.25~0.5	Possible bacterial etiology	Recommend using antibiotics					
			> 0.5		Highly likely in bacterial etiology	Highly recommend using antibiotics					
	CRP μg/mL 3		children	< 10	Bacterial infection can be basically ruled out						
				10~25		ne course of the disease is short and e ruled out, retesting after several					
				> 25	Bacterial infection						
CRP		3-100	adult	10~25		ne course of the disease is short and e ruled out, retesting after several					
				25~50	Indicates viral or bacterial infection						
			ас	50~100 Usually caused by bacterial infection		l infection					
				> 100	Indicates a serious bacterial infection and viral infection can be essentially ruled out						





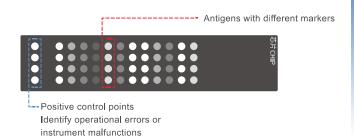
# Anti-nuclear antibody spectrum IgG reagent kit



# **Microarray Chemiluminescence Immunoassay**

## **Detection Principle**

# **Indirect method**



#### **Product advantages**

Automatic	Highly sensitive  Chemiluminescence method with high sensitivity			
Loading of blood collection tube on the machine, one-touch operation				
Full-quantitative	High speed			
Capable of full-quantitative detection	Detection speed is up to 840 T/H			
High throughput				

Microarray protein chip technology for joint detection of 14 autoantibodies

#### Reagent Kit

Product Name	Menu	Indicator	Auxiliary diagnosis		
Anti-nucle-	14 anti-nuclear antibody IgG test kits	nRNP/Sm、Sm、Ro-52、SS-A/Ro、SSB、Scl-70、PM-Scl、Jo-1、 CENP B、dsDNA、Nucleosome、Histone、P0、M2	autoimmune diseases such as SLE/SS/MCTD		
ar antibody spectrum	7 anti-nuclear antibody IgG test kits	nRNP/Sm、Sm、Ro-52、SS-A/Ro、SSB、Scl-70、Jo-1	SLE/MCTD		
IgG reagent 3 anti-nuclear antibody IgG test kits		dsDNA、nRNP/Sm、Sm	SLE		
	3 anti-nuclear antibody IgG test kits	Ro-52、SS-A/Ro、SSB	SS		

#### **Clinical Application Department**

Rheumatology and Immunology Department, Nephrology Department, Gastroenterology Department, Dermatology Department, Infectious Diseases Department, etc.

#### Indicators and clinical significance

Indicator	Unit	CUTOFF VALUE	Liner range	Disease	Antibody Occurrence
Sm	RU/mL	20	2-200	SLE	5-30
nRNP/Sm	RU/mL	20	2-200	SLE/MCTD	30-40/95-100
SS-A/Ro	RU/mL	20	2-200	SS/SLE	20-60
Ro-52	Ro-52 RU/mL 20 2-		2-200	SS	40-95
SSB	RU/mL	20	2-200	SS/SLE	40-80/10-20
dsDNA	IU/mL	100	10-800	SLE	40-90
P0	RU/mL	20	2-200	SLE	5-15
Nucleosome	RU/mL	20	2-200	SLE	50-95
Histone	RU/mL	20	2-200	Drug-induced lupus erythematosus	95
Scl-70	RU/mL	20	2-200	Progressive Systemic Sclerosis	25-75
PM/Scl	RU/mL	20	2-200	Polymyositis / Sclerosis	8
CENP B	RU/mL	20	2-200	CREST syndrome	70-90
AMA-M2	RU/mL	20	2-200	PBC	85-95
Jo-1	RU/mL	20	2-200	Dermatomyositis / Sclerosis	25-35

# Allergen-specific IgE **Antibody Reagent Kit**

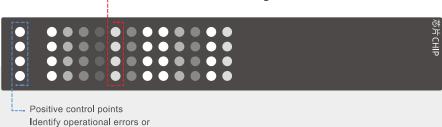


## Microarray Chemiluminescence Immunoassay

## **Detection Principle**

**Indirect method** 

----- Antigens with different markers



#### Intended Uses

This test is used for in vitro detection of allergen specific IgE levels in human serum and for quantitative detection of total IgE levels in human serum. It is used in conjunction with other clinical information as an auxiliary tool for the clinical diagnosis of IgE-mediated allergic diseases in the clinical laboratory

instrument malfunctions

#### **Product advantages**

#### High throughput

Utilizing microarray biochip chemiluminescence method, can analyze 9 components of allergens simultaneously

#### Small sample size

Only 70ul sample are required to complete the test, and both peripheral blood and venous blood are available, easily accepted by young children

#### Highly sensitive

Highly integrated chemiluminescence technology, good correlation with Phadia, total IgE traceable to the WHO 3rd generation IgE international standard substance 11/234

#### **Good specificity**

The addition of non-specific adsorption detection improves the accuracy and reliability of the results.

#### **Detection Indices**

**Product Name** Result presentation

Allergen IgE Reagent Kit (9 Items)

Dermatophagoides pteronyssinus D1, Dermatophagoides farina D2, Mugwort W6, Alternaria M6, Cat dander E1, Blattella germanica I6, Egg white (Protein) F1, Milk F2, Wheat F4, Total IgE

Quantitative

#### Applicable to (Departments)

Allergology Department, Pediatrics Department, Dermatology Department, Respiratory Department, Gastroenterology Department, etc.





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