

# Product Features

## Small

Only 1/6 the size of a traditional chemiluminescence analyzer  
500mm\*645mm\*648mm



## Fast

Single machine throughput of 150T/H

## Accurate

Fully automated detection  
Precise traceability system  
Perfect quality control management

## Sensitive

Acridinium ester chemiluminescence  
Wider linear range  
Better precision and sensitivity

# Applicable Scenarios



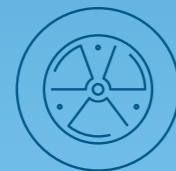
General Hospitals  
A&E Department

Comprehensive, Fast, Accurate  
Overall Solution for  
Cardiovascular and Inflammation



Extended  
Supplement Assays

Tumor Markers:  
proGRP, HE4, CA50, CA242;  
Cardiovascular Markers:  
H-FABP, D-dimer, sST2, etc.



Clinical Laboratories  
Immediate Diagnosis

Suitable Quick Analysis in  
Fever Clinics, A&E Unit,  
Respiratory Clinics,  
Cardiology Unit,  
Pediatrics, etc.



Primary Care  
At Your Convenience

Abundant Selection of  
Markers to Fulfill  
Day-to-day Screening  
and Diagnosis

# Test Menu

## A Speedy Solution to Cardiovascular and Inflammatory Events

Tellgen 'Tell You the Gene' series provide a fast and accurate platform for biological marker detection for doctors and health workers to diagnose diseases and customize treatment plans.

## A Comprehensive Solution for Differential Diagnosis of Chest Pain

- **Myocardial Infarction Quadruple**  
hs-cTnI + CK-MB + MYO + H-FABP
- **Chest Pain Trio**  
hs-cTnI + BNP/NT-proBNP + D-dimer
- **Chest Pain Sextet**  
hs-cTnI + CK-MB + MYO + H-FABP + BNP/NT-proBNP + D-dimer

In the '2018 Guidelines for Diagnosis and Treatment of Heart Failure in China', it is emphasized that using multiple biomarkers could be the future of diagnosis and treatment. Chest pain differential diagnosis provides a quick and accurate early-stage diagnosis of chest pain with differentiation diagnosis, risk stratification, treatment monitoring, and prognostic assessment in patients with chest-pain, shortness-of-breath, dizziness, and chest-stuffiness. This combination shortens emergency treatment time, lower the rate of miss and misdiagnosis, and greatly improve efficiency of diagnosis and treatment in patients with high-risk chest pain

## A Comprehensive Solution for Heart Failure Management

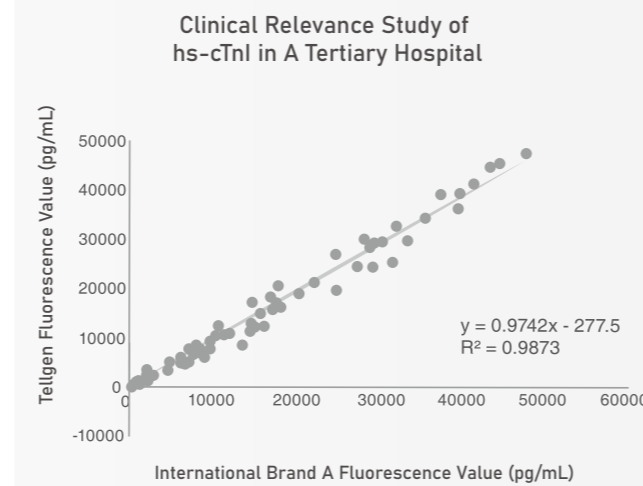
## BNP/NT-proBNP + sST2 for precise management of heart failure disease progression

## A Speedy Solution for Inflammation Differentiation

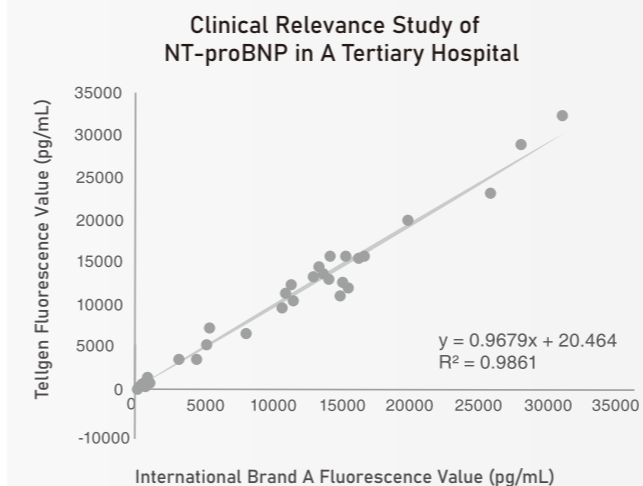
## IL-6 + PCT for monitoring overall disease progression in bacterial infections/sepsis

In the '2021 National Medical Quality and Safety Improvement Target', PCT and IL-6 detection is emphasized to be as equally significant as microbial cultures in infectious diagnostics to provide inpatients' etiology submission rate before antimicrobial therapies. This combination is also listed in previous literatures such as "Expert consensus on the interpretation of clinically significant infection-related biomarkers", "Expert consensus of PCT's clinical application in the A&E unit", "Pneumonia diagnosis and treatment plan for SARS-CoV-2 infections (fifth edition)", "Diagnosis and treatment plan for severe and critical cases of pneumonia caused by SARS-CoV-2 infection (Trial Version 2)", etc.

### hs-cTnI



### NT-proBNP



# Cardiovascular Markers Inter- and Intra-batch Precision

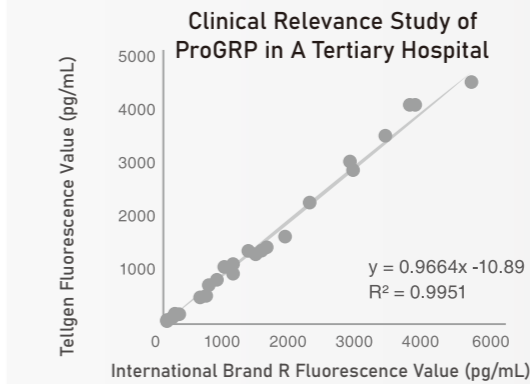
A comprehensive list of tumor markers providing more precision to tumor screening and diagnostics

Marker	Intrabatch Precision		Interbatch Precision	
	Low Value Sample	High Value Sample	Low Value Sample	High Value Sample
AFP	3.50%	4.50%	3.82%	4.77%
SCCA	4.07%	3.02%	4.98%	4.24%
NSE	3.38%	3.50%	4.43%	3.98%
ProGRP	1.90%	2.42%	3.47%	2.78%
PGI	3.39%	2.17%	1.28%	3.27%
HE4	3.38%	4.22%	4.29%	4.55%
CA24-2	4.49%	1.78%	3.28%	3.16%
CA50	4.57%	3.14%	4.29%	4.10%

Data From: Product Quality Inspection

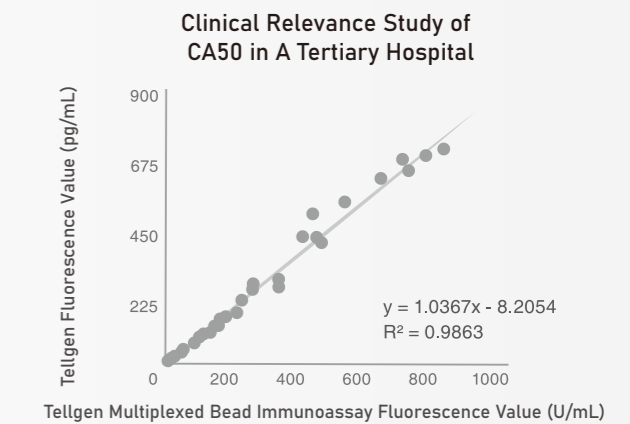
### ProGRP

- Avoids Enzymatic Fragmentation for A More Stable Serum Detection
- Aids in Detection of Early-Stage Small Cell Lung Cancer, Can be Used As Independent Prognostic Factor



### CA50

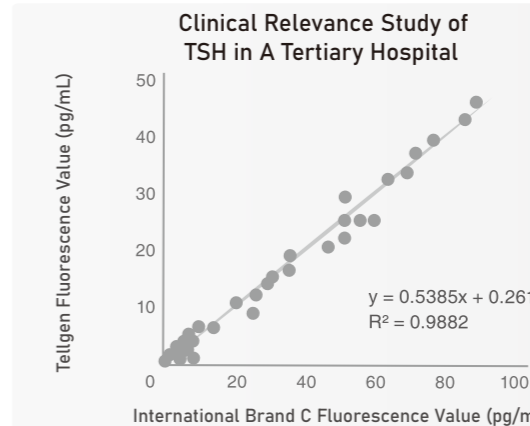
- Broad Spectrum Carbohydrate Antigen



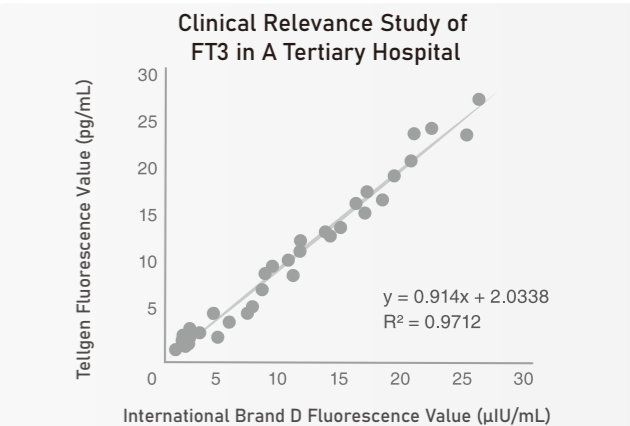
# Thyroid Function Detection

Acridinium ester has a small molecular weight with high precision, making it suitable for small molecule detection

### TSH



### FT3



Marker	Intrabatch Precision		Interbatch Precision	
	Low Value Sample	High Value Sample	Low Value Sample	High Value Sample
TSH	4.80%	3.41%	4.32%	3.29%
T3	3.62%	3.60%	4.40%	4.60%
FT3	3.94%	3.18%	4.81%	4.67%
FT4	3.15%	3.11%	4.74%	4.06%

Data From: Product Quality Inspection

## Test Menu

### Cardiovascular and Inflammatory Markers (10 Assays)

hs-cTnl	IL-6
CK-MB	PCT
MYO	BNP
H-FABP	NT-ProBNP
D-Dimer	sST2

### Tumor Markers (23 Assays)

AFP	ferritin
CEA	β2-MG
NSE	CA15-3
CYFRA21-1	proGRP
CA125	HE4
CA19-9	CA72-4
SCCA	CA24-2
tPSA	CA50
fPSA	G-17
free-β-hCG	PIVKA-II
PGI	HER2
PGII	

### Thyroid Function Markers (8 Assays)

TSH	TG
TT3	TgAb
FT3	TPO Ab
TT4	
FT4	

### Hormone Markers (8 Assays)

AMH	P
FSH	T
LH	β-hCG
PRL	E2

### Infectious Disease Markers (8 Assays)

TP Ab	HBsAb
HCV Ab	HBeAg
HIV Ag/Ab	HBeAb
HBsAg	HBcAb

### Bone Turnover Markers (6 Assays)

25-OH VD	
PTH	
Osteocalcin	
calcitonin	
P1NP	
β-CTX	

### Diabetes Markers (2 Assays)

Insulin
C-Peptide

### Anemia Markers (2 Assays)

Folate
B12

## Basic Parameters

Model	TESMI i100
Throughput	150 T/H, 120 T/H for two-step immunocapture technique
Reaction Time	6+6 mins
Testing Principle	Acridinium ester chemiluminescence
Reagent Slots	15, flexible exchange and addition, with re Fridgeration function
Sample Slots	24, flexible exchange and addition
Reaction Cup Slots	≥130 cups, can be added anytime
A&E Function	Flexible on-the-spot emergency testing
Sample Type	Supports vacutainers and micro sample cups
Weight	89kg
Size	500mm x 645mm x 648mm

### Smart System

- Smart barcode recognition of samples and reagents
- Liquid level detection, empty suction alert, blocked needle alert
- Real-time monitoring with alarm of liquid amount
- Monitor, alarm, and replenish washing liquid
- Monitoring and alarming of waste liquid
- Alert and alarm of waste overload
- Self-diagnose, self-process, and self-protect under abnormal situations
- Unique incubation and washing technique
- Supports many vortexing modes if needed
- Supports diverse testing modes
- Two vortex mixing structures for sample-reagent vortex and substrate vortex
- 2 independent mechanical claws work fast and efficiently
- Built-in computer without the need for external computer
- Reaction cups made for single, sporadic, and batch testing
- 2 independent needles for adding sample and reagents
- Negative pressure suction needle design, stable and reliable
- Supports real-time dilutions
- Smart data analyzing, automatic detection of abnormal data
- Automated scanning of reagent barcodes
- External bucket liquid level detection
- Centralized loading of consumables
- Smart display of sample rack condition
- Batch number managing of reagent and consumables
- One-click maintenance function

### Software System

- Random, batch, emergency operation modes
- Supports LIS system for two-way data transfer
- Remote IoT service function
- 10-inch touch-screen with graphical operational interface
- 24-7 remote online technical support and maintenance

### Tellgen Corporation

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Official Website



WeChat Programme

## Tellgen's Fully Automated High-throughput Solution for Immunoassays

Great for tight laboratory spaces

- Best of both worlds — a POCT sized device with CLIA accuracy
- Throughput of 150 T/H
- Tailor Made for the A&E Department



# TESMI i100

Automated Chemiluminescence Immunoanalyzer

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