

# Thyroid. Hormone. Tumor Marker.

Automatic Chemiluminescence Immunoassay Analyzer

TESMI i100



- High throughput of up to 150T/H
- Solution for tight lab spaces

# 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



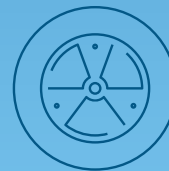
**General Hospitals**  
A&E Department

Comprehensive, Fast, Accurate  
Overall Solution for  
Cardiovascular and Inflammation



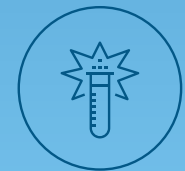
**Supplement**  
Extended Selection  
of Assays

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 Fulfil  
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 that aid 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 + hFABP**

- **Chest Pain Trio**

**hs-cTnI + BNP/NT-proBNP + D-dimer**

- **Chest Pain Sextet**

**hs-cTnI + CK-MB + MYO + hFABP + 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 differential diagnosis of chest pain, risk stratification, treatment monitoring, and prognostic assessment in patients with chest-pain, shortness-of-breath, dizziness, and chest-stiffness. This combination shortens emergency treatment time, lowers the rate of missed and mis-diagnosis, and greatly improves diagnosis efficiency and treatment in patients with high-risk chest pain

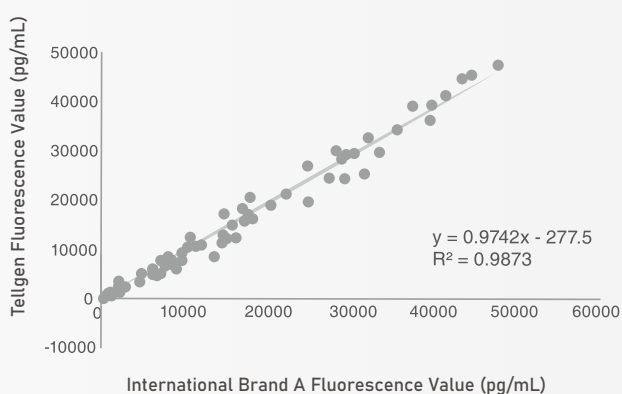
## A Comprehensive Solution for Heart Failure Management

### BNP/NT-proBNP + ST2 for precise management of heart failure disease progression

## Cardiovascular Marker Detection

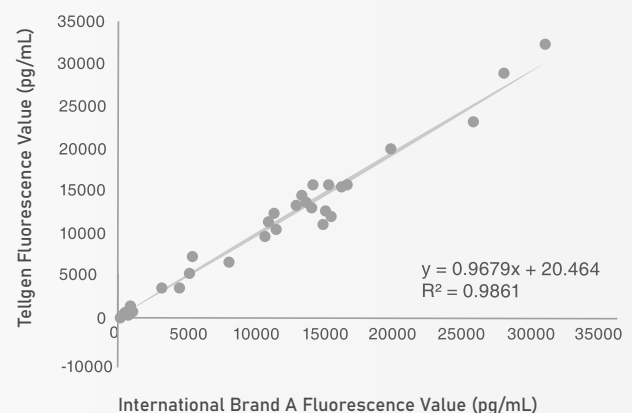
### hs-cTnI

Clinical Relevance Study of  
hs-cTnI in A Tertiary Hospital



### NT-proBNP

Clinical Relevance Study of  
NT-proBNP in A Tertiary Hospital



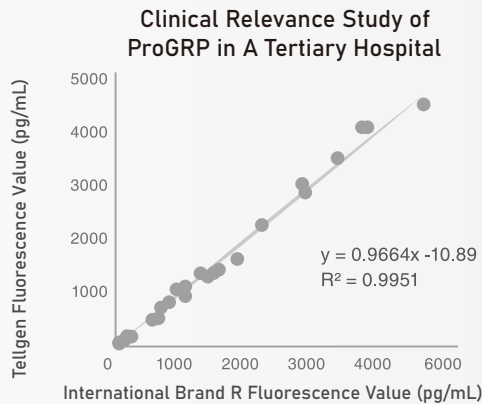
## IL-6 + PCT for monitoring overall disease progression in bacterial infections/sepsis

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.

### Tumor Marker Detection

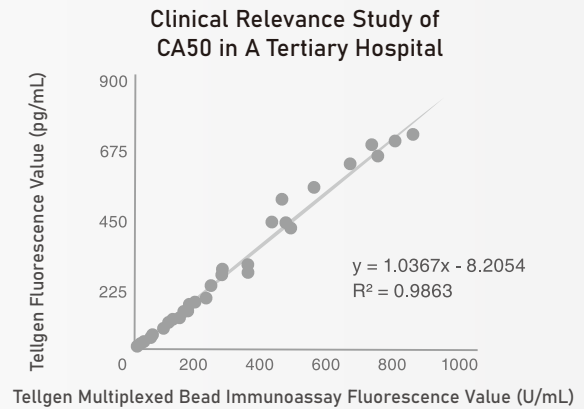
#### ProGRP

- 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



### An overall Solution for Gastric Cancer Screening

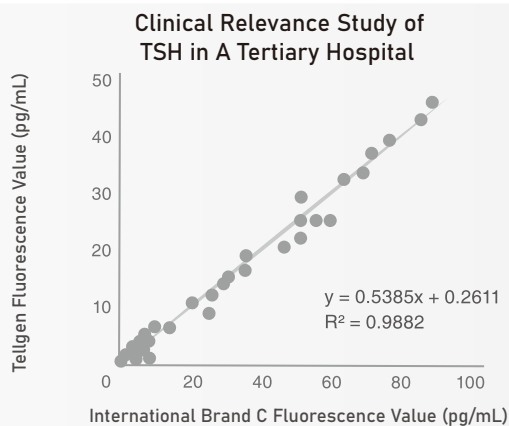
## PG I + PG II + G-17 for gastric cancer screening

Atrophic gastritis (AG) is a well-recognized high-risk condition for developing gastric cancer, G-17 was significantly decreased with the exacerbation of antral atrophy in the coexistence of corpus atrophy. Low levels of pepsinogen and G-17 could discriminate between multifocal AG and other types of AG, but not with pepsinogen alone. Therefore, low serum levels of pepsinogen and G-17 are predictive indicators of extensive gastric atrophy with high-risk of early gastric cancer (Kikuchi et al., 2011).

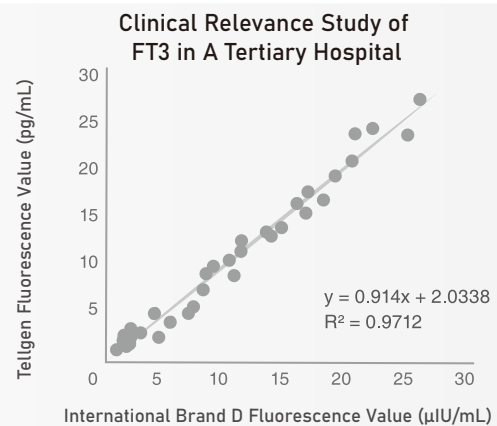
### Thyroid Function Detection

Acridinium ester has a small molecular weight, making it suitable for precise detection of small molecules, such as thyroid function.

#### TSH



#### FT3



# Test Menu

## Cardiovascular and Inflammatory Markers (10 Assays)

hs-cTnl

CK-MB

MYO

hFABP

D-Dimer

IL-6

PCT

BNP

NT-ProBNP

ST2

## Tumor Markers (23 Assays)

AFP

CEA

NSE

CYFRA21-1

CA125

CA19-9

SCCA

tPSA

fPSA

free- $\beta$ -hCG

PGI

PGII

ferritin

$\beta$ 2-MG

CA15-3

proGRP

HE4

CA72-4

CA24-2

CA50

G-17

PIVKA-II

HER2

## Thyroid Function Markers (8 Assays)

TSH

TT3

FT3

TT4

FT4

TG

TgAb

TPO Ab

## Hormone Markers (8 Assays)

AMH

FSH

LH

PRL

P

T

$\beta$ -hCG

E2

## Infectious Disease Markers (8 Assays)

TP Ab

HCV Ab

HIV Ag/Ab

HBsAg

HBsAb

HBeAg

HBeAb

HBcAb

## Bone Turnover Markers (6 Assays)

25-OH VD

PTH

Osteocalcin

calcitonin

P1NP

$\beta$ -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 priority testing
Sample Type	Supports vacutainers and micro sample cups
Weight	105kg
Dimension	500mm x 666mm x 678mm (W*D*H)

## Smart System

- One-click maintenance function
- Liquid level detection, empty suction alert, blocked needle alert
- Real-time monitoring with alarm of liquid and waste
- Smart display of sample rack condition
- Supports various vortexing modes
- Supports diverse testing modes
- Self-diagnose, self-process, and self-protect under abnormal situations
- 2 independent mechanical claws work fast and efficiently
- 2 independent needles for adding sample and reagents
- Unique incubation and washing technique
- Smart data analyzing, automatic detection of abnormal data
- Negative pressure suction needle design, stable and reliable
- Supports real-time dilutions
- External bucket liquid level detection
- Two vortex mixing structures for sample-reagent vortex and substrate vortex

## 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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WeChat Program