

PRODUCT CATALOG

for *In-Vitro* diagnostic reagents and instruments

Deeper Understanding of Life

Tellgen Corporation is an *in vitro* diagnostics company founded in 2003 in the Medical Valley of Shanghai. Soon after, we became one of the fastest growing IVD companies in China and got listed on the Shenzhen stock market in 2017 (stock code: 300642).

With our headquarters located in Zhangjiang Hi-Tech Park in Shanghai, we focus in the field of cancer diagnostics and are dedicated to developing products for early stage screening, auxillary diagnostics, personalized medicine usage, cancer prediction and monitoring. Since establishment, we have been committed to high-throughput multiplexed bead technology's research and promotion, contributing to instrument lines like TESMI F4000 for high-throughput multiplex immunoassay analysis, achieving outstanding results inside the IVD field.

Nowadays, Tellgen has expanded platforms to chemiluminescence, multiplex PCR, mass spectrometry, and biochemistry, forming many different product lines. Including but not

limited to tumor markers, cardiovascular markers, reproductive health, autoimmune markers, infectious diseases, DNA methylation, etc.

Tellgen entered the international market in 2020. Although a new player in the global market, we established partnerships all over the world, ranging from Asian countries to Western countries. Currently, we have long-term cooperation with companies from Thailand, India, Indonesia, Spain, Holland, the UAE, and North America.

With our mission, vision and values, Tellgen aim to become the leading IVD company in innovative technologies that focus on the needs and demands of doctors, patients, and institutions.

INTRODUCTION TO TELLGEN CORPORATION

GROWTH

OF TELLGEN

2003

Tellgen was established. We are the first company in China to cooperate with Luminex® and develop diagnostic reagents based on xMAP® technology.

2009

Tumor markers and HPV DNA differentiation testing kit obtained NMPA certification and was nominated as Shanghai high-tech achievement transformation project.

2011

Participated in national technology advancement project plan (863) to develop screening kits for early-stage cancers by detecting for DNA methylation and finding new methods for detecting circulating tumor cells.

20

2015 Awarded with 'Charity Contribution Award'. Obtained NMPA certificates for tumor marker assays, ToRCH assays, and TESMI F3999 instrument.

2017

Tellgen Corporation was listed on the Shenzhen stock market (stock code:300642).SHOX/RASSF1A DNA methylation detection kit was awarded with NMPA certification and obtained patent (ZL201510203539.1).

2018

Cooperated with Hitachi to form Tellgen-Hitachi modular automation. Awarded with 'Star Innovative Company' as Shanghai's technology development reaches its 30th year.

2020

Tellgen Corporation entered the global market. Established cooperations all over the world.

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CHEMILUMINESCENCE

Tellgen uses acridinium ester for chemiluminescence, a smaller molecule for more precise and accurate analysis of biomarkers.

Instrument

TESMI i100

Small

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

Accurate

Fully automated detection
Precise traceability system
Perfect quality control management

Fast

Single machine throughput of 150T/H*

Sensitive

Wider linear range
Better precision and sensitivity

*Throughput calculated under specific operation conditions



Parameter	Performance
Throughput	150T/H, 120T/H for two-step immunocapture technique
Reagent Slots	15, flexible exchange and addition, with refrigeration function
Sample Slots	24, flexible exchange and addition
Size	500mm*645mm*648mm

TESMI i200

Flexible

Personalize your lab system by joining up to 4 joint machines and/or connecting to ImmunDuo and modular automation according to throughput needs

Convenient

More than 5-hour walk-away time with cache module

Faster

Up to 480T/H for single instrument and 3360T/H for modular detection*

Carefree

Stable instrument with lower malfunction rate. Complementary maintenance and repairs



*Throughput calculated under specific operation conditions

Parameter	Performance
Throughput	480T/H, 240 T/H for two-step immunocapture technique
Sample Slots	300 with loop loading
Reagent Slots	25, flexible exchange and addition with refrigeration function
Size	2745mm*1125mm* 1360mm

Compatible Reagents

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							
Cardiovascular and Inflammatory Markers (10 Assays)																	
hs-cTnl	IL-6	CK-MB	PCT	MYO	BNP	hFABP	ST2	D-dimer	NT-ProBNP								
Thyroid Function Markers (10 Assays)						Hormone Markers (8 Assays)											
TSH	TT3	TT4	FT3	FT4	TPO Ab	TG	T-uptake	TR Ab	Tg Ab	AMH	FSH	LH	P	T	E2	PRL	β-hCG
Diabetes Markers (2 Assays)			Anemia Markers (2 Assays)			Bone Turnover Markers (6 Assays)											
Insulin	C-Peptide		Folate	B12		25-OH VD	PTH	Osteocalcin	calcitonin	P1NP	B-CTX						
Infectious Diseases Markers (8 Assays)						SARS-CoV-2 Detection (4 Assays)											
TPAb	HBSAb	HCV Ab	HBeAg	HIVAg/Ab	HBeAb	HBsAg	HBcAb			SARS-CoV-2 IgM	SARS-CoV-2 IgG	Antigen	Neutralizing Antibody				

MULTIPLIED BEAD FLOW FLUORESCENCE

TESMI F4000

Leader In Multiplexed Detection

Tellgen's Automated Multiplexed Bead Flow Fluorescence Immunoanalyzer is developed and designed by Tellgen Corporation based on multiplexed bead technology. This detection system gathers advantages of both flow fluorescence and multiplexed bead array assay, realizing high-throughput detection of multiple markers at a time with high sensitivity and excellent repeatability. Tellgen perfectly combines multiplexed bead flow fluorescence technology and sample pre-treatment, enabling this detection platform to have more automation and better temperature control.



Product Parameters

Testing Speed	120-4000 T/H (According to the targets per assay/joint assay, testing speed is calculated by 120 samples x joint assay number)	Reagent Area	25 Reagent Slots
Sample Area	125 Regular Sample Slots, 15 Priority Testing Slots Both Supporting Different Types of Blood Containers	Size	1030mm*1320mm*1260mm (W*L*H)

Compatible Reagents

01. Tumor marker assays

Utilizing the multiplex properties of multiplexed bead flow fluorescence immunoassays, we can have multiple analytes analyzed in one assay. This saves detection time and consumables cost.

Single Tumor Marker Assays

AFP	CA125	CA15-3	SCCA	HE4
CEA	CA19-9	CA72-4	CYFRA21-2	ProGRP
CA50	CA24-2	NSE	T-PSA	G-17
AMH	PIVKA-II			

Joint Tumor Marker Assays

AFP+CEA	CEA+CYFRA21-1+NSE
PGI+PGII	T-PSA + F-PSA
AFP+CEA+CA125+CA24-2+CYFRA21-1+NSE+free-β-hCG	

02. Liver fibrosis marker assays

PIIINP + LN + CIV + HA

03. ToRCH assays

ToRCH IgM

Toxo IgM + Rubella IgM + CMV IgM + HSV-I IgM + HSV-II IgM

ToRCH IgG

Toxo IgG + Rubella IgG + CMV IgG + HSV-I IgG + HSV-II IgG

04. Autoimmune disease assays (Tellgen FlowAI series)

Product	Analyte
Antinuclear Antibody Spectrum	dsDNA, Cenp B, Histone, Nucleosom, Ribosomal P, RNP, AMA(M2-3E), SSA60, SSA52, SSB, Scl-70, Jo-1, PM/Scl, Sm, PCNA, C1q
ENA Set	Sm, RNP, SSA60, SSA52, SSB, Scl-70, Jo-1, Ribosomal P
SLE Set	dsDNA, C1q, Nucleosome, Histone, Sm, RNP, Ribosomal P, PCNA
Anti-CCP Antibody	CCP
Vasculitis Antibody Spectrum	PR3, MPO, GBM
Antiphospholipid Antibody Spectrum (IgG)	aCL, a β 2GP1 (IgG)
Antiphospholipid Antibody Spectrum (IgM)	aCL, a β 2GP1 (IgM)
Autoimmune Liver Disease Antibody Spectrum	AMA(M2-3E), LKM-1, LC-1, SLA, GP210, SP100
Myositis Antibody Spectrum	Mi-2, TIF1 γ , MDA5, NXP2, SAE1, Ku, PM-Scl100, PM-Scl75, Jo-1, SRP, PL-7, PL-12, EJ, OJ, Ro52
Antiphospholipid Antibody Spectrum (IgA)	aCL, a β 2GP1 (IgA)
Type I Diabetes Antibody Spectrum	GAD, IA-2, IAA, ICA, ZnT-8
Anti-Phospholipase A2 Receptor Antibody	PRA2R
Interstitial Lung Disease Antibody	KL-6

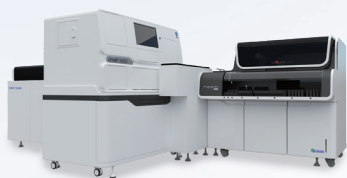
05. FOBT assays

HB + TF

Other Instruments

Tellgen ImmunDuo

A combination of multiplexed bead technology and chemiluminescence technology, realizing the possibility of running single analyte assays with joint analyte assays, achieving a high-throughput of up to 3360T/H with over 150 assays to choose from.



Tellgen ImmunDuo 1.0



Tellgen ImmunDuo 2.0

Tellgen Modular Automation

One-stop for sample analysis, from pre-sample treatment to result interpretation in one whole enclosed system.

Pair with our clinical chemistry series, including unique parameters such as CK-MB, sdLDL, Lp-PLA2, HCY.



MULTIPLEX PCR ANALYSIS

Most products are compatible with any conventional PCR machine.

SARS-CoV-2 testing

Product	Sample Type	Gene Detected	Nucleic Acid Extraction
SARS-CoV-2 Nucleic Acid Detection Kit based on Real-Time PCR Platform	Nasopharyngeal / oropharyngeal swab	N gene + ORF1ab gene	No
SARS-CoV-2 Nucleic Acid Detection Kit based on Real-Time PCR Platform	Nasopharyngeal / oropharyngeal swab	N gene + S gene	No
SARS-CoV-2 Nucleic Acid Detection Kit based on Real-Time PCR Platform	Nasopharyngeal / oropharyngeal swab	N gene + S gene	Yes
SARS-CoV-2 Multiplex Nucleic Acid Detection based on Real-Time PCR Platform	Nasopharyngeal / oropharyngeal swab	N gene + ORF1ab gene + E gene	Yes

AIGS Automated Integrated Gene detection System

Lab in a cartridge.

- 75 minutes extraction and amplification
- No PCR lab required



Parameter	Performance
Sample Capacity	4 independent detection units
Temperature Range in Amplification Area	40-99.9°C
Fluorescence Linear	Linear correlation coefficient $ r \geq 0.95$
Signal Port	USB, Wi-Fi
Size	380mm*305mm*343mm

Compatible Reagents

All reagents come in a pack of 24 cartridges per box including negative and positive control.

SARS-CoV-2/Flu A/Flu B	Influenza A/B
SARS-CoV-2 (Two fragments of N gene)	Adenovirus/Mycoplasma pneumoniae/RSV
SARS-CoV-2 (N gene and ORF1ab gene)	HPV 16/18/hr12
SARS-CoV-2/Flu A+Flu B/RSV	Neisseria gonorrhoeae
EVU/CoxA16/EV71	Dengue Typing test
Mycobacterium tuberculosis complex	Dengue/Zika/Chikungunya
Mycobacterium tuberculosis/Haemophilus influenzae/Streptococcus pneumoniae	Herpes Simplex Virus Type II
Mycobacterium tuberculosis/Mycobacterium avium/Mycobacterium abscessus	Ureaplasma
Monkeypox	

With more coming soon.

NuaBox 1A

Small rapid nucleic acid detection system.

- 10 minutes for positive COVID-19 samples
- NuaBox uses a real-time PCR optical and detection module
- 30 minutes for all COVID-19 samples
- Special patented tube design to prevent lab contamination

Compatible Reagents

- SARS-CoV-2 detection (ORF1ab gene)
- SARS-CoV-2 detection (N gene)
- Neisseria gonorrhoeae
- Respiratory Syncytial virus
- Influenza A virus
- Influenza B virus
- Monkeypox

Parameter	Performance
Detection sensitivity	As low as 1 copy
Sample linearity	$ r \geq 0.99$
Detection channels	FAM/ROX
Connection type	Bluetooth,USB
Size	132mm*102.5mm*85mm
Weight	500g



Comprehensive HPV testing – HPV2+12, HPV 5+9, HPV 27

HPV 2+12 1 Assay 3 Results



HPV 5+9 1 Assay 6 Results



HPV 27 1 Assay 27 Results

High Risk

Detect and identify high risk HPV types

16 / 18 / 26 / 31 / 33 / 35 / 39 / 45 / 51 / 52 / 53 / 56 / 58 / 59 / 66 / 68 / 82

Low Risk

Detect and identify low risk HPV types

6 / 11 / 40 / 42 / 43 / 44 / 55 / 61 / 81 / 83

*HPV27 runs on the multiplexed bead immunoassay platform

Product Name	Specification	Storage Conditions
HPV2+12 (16/18 genotyping)	48 tests/box	-20°C for liquid reagents; room temperature for lyophilized reagents
HPV 5+9 (16/18/33/52/58 genotyping)	48 tests/box	
Cell Preservation Solution	2.5mL x 49 bottles	2-30°C for 24 months
Nucleic Acid Extraction Kit	10mL x 2 bottles	
Endocervical Brush	1 pcs/pack	

Personalized Medicine EGFR/KRAS/BRAF

By using ARMS-PCR with Taqman probe, we can realize high sensitivity and high specificity detection of DNA mutations on the real-time PCR platform. By detecting for EGFR/KRAS/BRAF mutations, we can scientifically select for patients who are not suitable for certain treatments, guiding effective use of medicine.

- KRAS detects 8 Gly mutations
- BRAF detects V600E mutation
- EGFR detects 29 mutations

Colon S9 – detects septin9 DNA methylation in blood samples

Easy sampling
High compliance

The sample is uniform
and stable
Qualitative monitoring

Septin9
High specificity

Clinical Application	Colorectal cancer blood screening (pre-colonoscopy examination)
Sample Type	Venous blood
Detection method	Real-time fluorescence PCR method
Compatible Machines	Real-time PCR instrument (equipped with FAM and CY5 channels)

LungMe – SHOX2 and RASSF1A aids in the diagnosis of lung cancer

Clinical Application	Screening in high-risk lung cancer population
Sample Type	Human bronchoalveolar lavage fluid
Detection Method	Real-time fluorescence PCR method
Compatible Machines	Real-time PCR machine (equipped with FAM, VIC/HEX, Cy5 channels)

Y6 microdeletion testing kit

Looking for the cause of infertility on the genetic level. Contains two internal control for better sample control.

STS	sY84	sY86	sY127	sY134	sY254	sY255
EAA/EMQN	√	√	√	√	√	√
TellgenY6	√	√	√	√	√	√

Other Instruments

Automated Workflow Series

End-to-end pre-analytical solutions to free laboratory professionals from repeated work by using automated sample distribution, PCR mixture preparation, and nucleic acid extraction, reducing the risk of human error and contamination.

Tellgen Drex DP400



Sample uncapping, distribution, and recapping.
Sample goes in cap closed and comes out cap closed.

Tellgen MDR-HS1000-8B

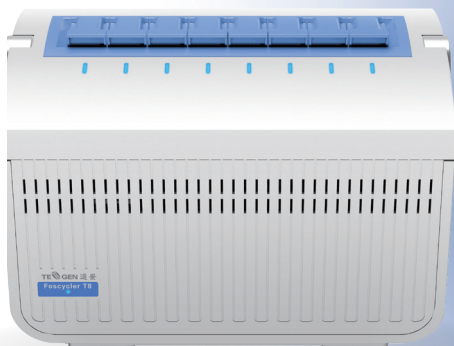


Sample distribution, nucleic acid extraction and PCR set-up.
Sample goes in and PCR-ready 96 well-plates comes out.

Tellgen DP96



Sample uncapping, distribution, nucleic acid extraction and PCR set-up.
Sample goes in cap closed and comes out in a 96-well plate, ready for PCR amplification.



Rapid PCR Cycler

Foscyler T8

Reducing PCR cycling time from
80 ~ 120 minutes to 30 minutes
without reducing quality.

Deeper Understanding of Life
探索生命 延续希望

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