

# **Tianlong Customers**



PANA 9600S in Wuchang Hospital (Wuhan, China)



PANA 9600S in UENO Royal Hospital (Japan)



Dubai Customers Purchasing GeneRotex 96 Extractors and Supporting Reagents



Tianlong Libex Used in Anglo Group Makeshift Laboratory in South Africa



China National Biosafety Laboratory (CCTV News)



A Disease Control Center in South Korea



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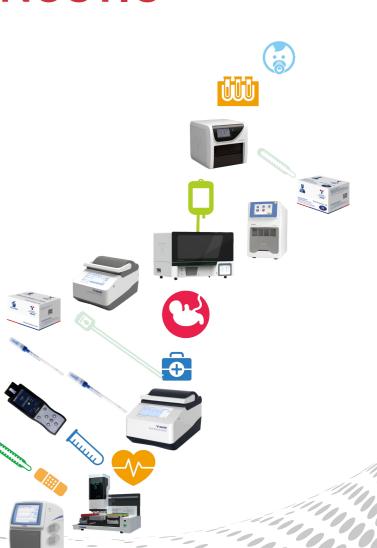
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# **TIANLONG CLINICAL DIAGNOSTIC**



- Molecular Diagnostics
- Genetic Testing
- One Solution for All
- All-Around Services





# ABOUT

# Established in 1997, Tianlong has been committed to the research and development, production, and overall solution of instruments and reagents in the fields of nucleic acid detection and molecular diagnostics. Tianlong products range from nucleic acid extractors based on magnetic bead method, PCR thermal cyclers, real-time PCR systems, and other molecular diagnostic instruments to large automated nucleic acid workstations, with hundreds of compatible reagents. Tianlong products can be widely used in clinical diagnosis, scientific research, epidemic surveillance, customs quarantine, food safety, forensics, etc. Among them, infectious disease detection, genetic disease diagnosis, cancer risk prediction, and precision medicine, are very important areas of clinical diagnosis. In addition, Tianlong has also supported the prevention and control of major epidemics such as SARS, Ebola, Avian influenza, African swine fever, and COVID-19, and has become the main supplier of nucleic acid detection products for epidemic prevention and control.

To date, Tianlong products have obtained over 60 approvals by China NMPA, 20 EU CE certifications, 65 approvals in the United States, the United Kingdom, Japan, South Korea, and Indonesia among 14 countries and regions worldwide. Tianlong products have been marketed in more than 70 countries and supported the detection and diagnostic capabilities for thousands of medical institutions, centers of disease control and prevention, independent clinical laboratories around the world.

Tianlong will always continue to develop first-class molecular diagnostic products for human well-being.



# **CONTENTS**

#### **REAGENTS 03**

I. Nucleic Acid Extraction Kits (Magnetic Bead Method)	
Viral RNA/DNA	
Whole blood genomic DNA	
Bacterial genomic DNA  Other samples	
·	
II. Real-Time PCR Kits	
Respiratory diseases	
Sexually transmitted disease  Reproductive medicine	. —
Gastrointestinal diseases	
Genetic diseases	
Pharmacogenomic testing	15
Oncology tests	17
III. Sample Collection Set	18
INICTOLIMENTS 10	
INSTRUMENTS 19	
I. PANA 9600S Automated Nucleic Acid WorkStation	20
II. Nucleic Acid Extractors	21
GeneRotex 96/48 Nucleic Acid Extractor	21
Libex Nucleic Acid Extractor	22
III. PCR Thermal Cyclers and Real-Time PCR Systems	23
Genesy 96T PCR Thermal Cycler	23
Gentier 96E/96R Real-Time PCR System	
Gentier 48E/48R Real-Time PCR System	24
IV. GeneMix 48 Automated Sample Processing System	25
V. PANA S401/S201 Automated Pipetting Workstation ······	26

# REAGENTS















# Nucleic Acid Extraction Kits

(MAGNETIC BEAD METHOD)

Nucleic acid extraction is an important initial step for nucleic acid testing, and the quality of nucleic acid extraction products can directly impact the accuracy of nucleic acid testing results.

Tianlong offers a range of over 40 superior reagents based on the magnetic-bead method for the extraction of nucleic acids from whole blood, serum, plasma, swabs, feces, animal and plant tissues, etc. These products are approved by NMPA (China), FDA (US), KFDA (South Korea), and CE-certified among many other official certifications. To meet your extraction needs in various scenarios, all the kits are provided pre-filled in single rows or in plates (20T / 40T / 48T / 64T / 96T).

Working with Tianlong automation nucleic acid extractor and workstations, such as PANA 9600S, Libex, GeneRotex 96, Tianlong magnetic bead kits can capture nucleic acids from 96 samples within 20 minutes.

# Viral RNA / DNA Extraction Kits

No.	Catalog No.	Product Name	Model	Specifications	Sample Type	
1	T050H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
2	T051H	Viral DNA and RNA Extraction Kit	Ex-DNA / RNA in viruses (5.0)	40T/Kit (pre-filled), 10T/Plate × 4 Plates	Swab, Saliva and other liquid samples.	
3	T052H			20T/Kit (pre-filled), 5T/Plate × 4 Plates		
4	T324H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
5	T322H	Viral DNA and RNA	Ex-DNA / RNA	40T/Kit (pre-filled), 10T/Plate × 4 Plates	Serum, Plasma, Urine,	
6	T323H	Extraction Kit	in viruses (4.0)	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Swab medium, etc.	
7	T038H			20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips		
8	T041H	Viral DNA and RNA Extraction Kit	Ex-DNA / RNA in viruses (4.0L)	48T/Kit (pre-filled), 8T/Plate × 6 Plates	Whole blood, Serum, Plasma, Tissue fluid, Urine, Swab medium, etc.	
9	T325H	Viral DNA and RNA Extraction Kit	Ex-DNA / RNA in viruses (only for Tianlong PANA 9600S)	96T/Kit (pre-filled) 16T/Plate × 6 Plates	Serum, Plasma, Urine, Swab medium, etc.	
10	T014H	Viral DNA and RNA	Ex-DNA / RNA in viruses (for	64T/Kit (pre-filled), 16T/Plate × 4 Plates	Curah madium ata	
11	T016H	Extraction Kit	SARS-CoV-2 Rapid Extraction)	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips	Swab medium, etc.	
12	T112H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
13	T111H	Nucleic Acid Extraction Kit	Ex-DNA in HCMV / EB virus	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Serum, Plasma, Whole blood, etc.	
14	T123H			20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips		
15	T114H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
16	T113H	Nucleic Acid Extraction Kit	Ex-DNA in HPV	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Cytobrush collection medium, etc.	
17	T115H		<u> </u>	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips		

# Whole Blood Genomic DNA Extraction Kits

No.	Catalog No.	Product Name	Model	Specifications	Sample Type		
1	T146H		Ex-Genomic DNA in Whole blood	64T/Kit (pre-filled), 16T/Plate × 4 Plates			
2	T148H	Whole Blood Genomic				40T/Kit (pre-filled), 10T/Plate × 4 Plates	Whala blood ata
3	T147H	DNA Extraction Kit		20T/Kit (pre-filled), 5T/Plate × 4 Plates	Whole blood, etc.		
4	T149H			20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips			

# **Bacterial Genomic DNA Extraction Kits**

No.	Catalog No.	Product Name	Model	Specifications	Sample Type
1	T132H	Nucleic Acid	Ex-Genomic	64T/Kit (pre-filled), 16T/Plate × 4 Plates	Bacterial suspension culture, Swab medium, Sputum,
2	T131H	Extraction Kit	DNA in Bacterial	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Urine, Stool, etc.
3	T136H	Nucleic Acid	F., DNIA :- TD	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Courtum etc
4	T137H	Extraction Kit	Ex-DNA in TB	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips	Sputum, etc.

-06

#### **Special Sample Nucleic Acid Extraction Kits**

No.	Catalog No.	Product Name	Model	Specifications	Sample Type	
1	T085H		5.0	64T/Kit (pre-filled), 16T/Plate × 4 Plates		
2	T084H	Nucleic Acid Extraction Kit	Ex-Genomic DNA in Plant Tissues	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Blade, Pulp, Seed, Tuber, etc.	
3	T087H		Figure Hissages	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips		
4	T093H	Nucleic Acid Extraction Kit	Ex-Genomic DNA in Animal Tissues	64T/Kit (pre-filled), 16T/Plate × 4 Plates	Animal tissues, etc.	
5	T150H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
6	T152H	Nucleic Acid	Ex-Genomic DNA in dried	40T/Kit (pre-filled), 10T/Plate × 4 Plates	Dried blood spot (DBS),	
7	T151H	Extraction Kit	blood spots (DBS)	20T/Kit (pre-filled), 5T/Plate × 4 Plates	etc.	
8	T153H			20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips		
9	T165H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
10	T162H	Nucleic Acid Extraction Kit	Ex-DNA in FFPE	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Formalin-fixed paraffin embedded (FFPE) tissue, etc.	
11	T161H			20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips	tissue, etc.	
12	T171H	Nucleic Acid Extraction Kit	Plasma/Serum Cell-Free Circulating DNA Isolation Kit	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips	Serum, Plasma, etc.	
13	T180H			64T/Kit (pre-filled), 16T/Plate × 4 Plates		
14	T181H	Nucleic Acid Extraction Kit	Ex-DNA / RNA in stool	20T/Kit (pre-filled), 5T/Plate × 4 Plates	Stool, etc.	
15	T182H			20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips	,	
16	T192H	Nucleic Acid	Ex-DNA in	64T/Kit (pre-filled), 16T/Plate × 4 Plates	Buccal swab, etc.	
17	T191H	Extraction Kit	buccal swab	20T/Kit (pre-filled), 5T/Plate × 4 Plates	buccai swab, etc.	
18	T202H		Turo	64T/Kit (pre-filled), 16T/Plate ×4 Plates		
19	T201H	Nucleic Acid Extraction Kit	Ex-Genomic  DNA in	20T/Kit (pre-filled), 5T/Plate ×4 Plates	Amniotic fluid, etc.	
20	T321H		amniotic fluid	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips		
21	T901H	Nucleic Acid	Ex-DNA in	64T/Kit (pre-filled), 16T/Plate × 4 Plates	Pactorial outture ata	
22	Т936Н	Extraction Kit	plasmid	20T/Kit (DT6, pre-filled), 1T/Strip × 20 Strips	Bacterial culture, etc.	

## **FEATURED PRODUCTS**

# [Viral DNA and RNA Extraction Kit]

(for SARS-CoV-2 Rapid Extraction)

Designed for rapid and highly efficient extraction of nucleic acids from SARS-CoV-2 in test swabs, especially for low-copy samples

CATALOG NO.: T014H

MODEL: Ex-DNA / RNA in viruses

SPECIFICATIONS: 64T/Kit (pre-filled), 16T/Plate ×4 Plates

SAMPLE TYPE: Swab medium, etc.

FEATURES: (1) No need for proteinase K, run directly.

(2) Fast extraction from 96 samples completed within 20 min, with highly stable and

repeatable results.

(3) Excellent consistency, <15% inter-batch or intra-batch variation.

# [Viral DNA and RNA Extraction Kit]

Designed for extraction and purification of viral nucleic acids in all types of samples including serum, plasma, urine, and swab medium, etc.

CATALOG NO.: T324H

MODEL: Ex-DNA / RNA in viruses (4.0)

**SPECIFICATIONS**: 64T/Kit (pre-filled), 16T/Plate × 4 Plates

FEATURES: (1) Extraction sensitivity: from the lower limit of 10 IU/mL DNA, 30 IU/mL RNA viral load.

(2) Precision: the coefficient of variation CV ≤5%.

(3) Designed for a wide variety of sample types for a broad range of applications.

-07-

# [Whole Blood Genomic DNA Extraction Kit]

Designed for fast and efficient extraction and purification of genomic DNA in whole

CATALOG NO.: T146H

MODEL: Ex-Genomic DNA in Whole blood SPECIFICATIONS: 64T/Kit (pre-filled), 16T/Plate × 4 Plates

**SAMPLE TYPE:** Whole blood

FEATURES: (1) High-efficiency, high-quality extraction of genomic DNA from whole-blood samples,

especially from low-abundance samples.

(2) Fast extraction from 96 samples in one run via PANA 9600S or GeneRotex 96, with

highly stable and repeatable results.

(3) Excellent consistency, <15% inter-batch or intra-batch variation.





Real-Time PCR Kits

Nucleic acid testing, especially real-time PCR, has been widely used in clinical diagnostic fields such as infectious disease detection, genetic disease diagnosis, cancer risk prediction and precision medicine, recommended by the guidelines for various disease. Tianlong offers more than 40 kinds of real-time PCR reagents, designed for the diagnosis and testing for respiratory diseases, sexually transmitted diseases, prenatal and postnatal care, digestive diseases, genetic diseases, cancers and pharmacogenomic testing. These reagents have obtained approvals in China, EU, Ukraine, Indonesia among other countries and regions around the world.

## **RESPIRATORY DISEASES**

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P732H	Novel Coronavirus (2019-nCoV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T
2	P736H	Novel Coronavirus (2019-nCoV) E-Gene Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T
3	P741H	SARS-CoV-2 Nucleic Acid Detection Kit (Real-time RT-PCR Method)	50T
4	P742H	SARS-CoV-2 Nucleic Acid Multiplex Detection Kit (Real-time RT-PCR Method)	50T
5	P738H	Influenza A/Influenza B/Human Adenovirus/2019-nCoV Nucleic Acid Detection Kit (Fluorometric Real-Time PCR)	50T
6	P109H	Mycoplasma Pneumoniae (MP) Nucleic Acid detection Kit (Fluorescence PCR Method)	32T
7	₹ P121H	Mycobacterium Tuberculosis Complex Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
8	P122H	Influenza A/B Virus RNA Detection Kit (Fluorescence PCR Method)	32T
9	YP2017H	Respiratory Viral Panel Multiplex PCR Kit (12 types)	10T

-09-

#### **FEATURED PRODUCTS**

# **Novel Coronavirus (2019-nCoV)**

Nucleic Acid Detection Kit (Fluorescence PCR Method)



CATALOG NO.: P732H

**INTENDED USE:** Auxiliary diagnosis of COVID-19

FEATURES: Rapid detection: Test results reported within 50 minutes.

Accurate results: ORF1ab and N gene detection, with internal control (IC).

High sensitivity: Detection limit of 200 copies/mL.

Safe and reliable: Real-time PCR method, closed tubes throughout the procedures, without

opening the lid for next step.

# Influenza A/B Virus RNA Detection Kit

(Fluorescence PCR Method)

CATALOG NO.: P122H

INTENDED USE: Designed for genotyping and diagnosis of influenza A and influenza B

FEATURES: Rapid detection: Test results reported within 1.5h.

All-in-one: Simultaneous genotyping and testing of influenza A and influenza B. Accurate results: Detection limit of 500 copies/mL, with internal control (IC).

Safe and reliable: Real-time PCR method, closed tubes throughout the procedures, without

opening the lid for next step.

#### SEXUALLY TRANSMITTED DISEASES

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P103H	Chlamydia Trachomatis (CT) Nucleic Acid Detection Kit (Fluorescence PCR method)	32T
2	P104H	Neisseria Gonorrhoeae (NG) Nucleic Acid Detection Kit (Fluorescence PCR method)	32T
3	P105H	Ureaplasma Urealyticum (UU) Nucleic Acid Detection Kit (Fluorescence PCR method)	32T
4	P120H	Human Papillomavirus (HPV) Nucleic Acid Detection Kit (Fluorescence PCR method)	32T

#### **FEATURED PRODUCTS**

# Human Papillomavirus (HPV) Nucleic Acid Detection Kit

(Fluorescence PCR method)

CATALOG NO.: P120H

**INTENDED USE:** Designed for cervical cancer screening

FEATURES: Reliable: Covering the testing types recommended by authoritative guideline; approved by

China NMPA and EU CE-certified.

Rapid detection: Test results reported within 1.5h.

All-in-one: Detection of 18 types of HPV in one go, with differentiation for HPV 16 and 18.

Accurate results: Detection limit of 500 copies/mL, with internal control (IC).

Safe and reliable: Real-time PCR method, closed tubes throughout the procedures, without

opening the lid for next step.

-11-

## REPRODUCTIVE MEDICINE

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P106H	Herpes Simplex Virus (HSV) II Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
2	P107H	Human Cytomegalovirus (HCMV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
3	P108H	Measles/Rubella Virus RNA Detection Kit (Fluorescence PCR Method)	32T
4	P123H	Group B Streptococcus (GBS) Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T

## **Featured Products**

# Group B Streptococcus (GBS) Nucleic Acid Detection Kit (Fluorescence PCR Method)

CATALOG NO.: P123H

**FEATURES:** Reliable: Recommended testing by China and global guidelines; Approved by China NMPA; EU CE-certified.

Accurate results: Detection limit of 500 copies/mL, with internal control (IC).

Easy to use: Real-time PCR method, closed tubes throughout the procedures after loading, without opening the lid for next step; Automatic nucleic acid extraction, compatible with Tianlong nucleic acid extractors.

#### **CLINICAL SIGNIFICANCE:**

Epidemiological monitoring and analysis.

Pre-pregnancy and prenatal screening for GBS infection.

Providing basis for preventive antibiotic intervention during childbirth.

#### **DIGESTIVE DISEASES**

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P100H	Hepatitis C Virus (HCV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
2	P101H	Hepatitis B Virus (HBV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
3	P119H	Hepatitis B Virus (HBV) Genotyping PCR Kit (Fluorescence PCR Method)	32T
4	P149H	Hepatitis B Virus (HBV) Nucleic Acid Quantitative PCR Kit (Fluorescence PCR Method)	32T
5	P115H	Coxsackie A6/A10 RNA Detection Kit (Fluorescence PCR Method)	32T
6	P116H	Enterovirus 71/Coxsackie A16/Enterovirus Universal RNA Detection Kit (Fluorescence PCR Method)	32T
7	P117H	Enterovirus Universal RNA Detection Kit (Fluorescence PCR Method)	32T
8	P134H	Norovirus (GI/GII) RNA Detection Kit (Fluorescence PCR Method)	32T

### **Featured Products**

# **Hepatitis Virus Nucleic Acid Detection Kits**

HBV Kit (P101H): Detection limit of 10 IU/mL; Limit of quantification of 30 IU/mL; Covering HBV virus subtypes A, B, C and D

HCV Kit (P100H): Detection limit of 30 IU/mL; Limit of quantification of 50 IU/mL; Covering HCV virus subtypes 1, 1a, 1b, 2, 2a, 2b, and 3

HBV Genotyping Kit (P119H): Genotyping for subtypes B, C and D; Sensitivity of 500 copies/mL

**FEATURES:** Reliable: Recommended testing by China and global guidelines; Approved by China NMPA; EU CE-certified.

Accurate results: High sensitivity, accurate quantification, and wide coverage of subtypes. Fast and easy: With Tianlong automatic extractors, 96 samples can be tested within 2h.

-13-

#### **GENETIC DISEASES**

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P118H	Human Leukocyte Antigen B27 Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
2	P168H	Human Survival Motor Neuron 1 (SMN1) Gene Detection Kit (PCR-Melting Curve Method)	32T

#### **Featured Products**

## Human Survival Motor Neuron 1 (SMN1) Gene Detection Kit

(PCR-Melting Curve Method)

CATALOG NO.: P168H

INTENDED USE: Designed for auxiliary diagnosis of spinal muscular atrophy (SMA)

FEATURES: Reliable and precise: Detecting homozygous and heterozygous deletions; Recommended method

according to SMA guidelines and consensus.

Fast and easy: Test procedures completed within 2h; With interpreted testing report.

Economic: Lower cost compared with other methods such as PCR-RFLP or MLPA.

Safe: automatic nucleic acid extraction; Tube closed throughout the testing procedures;

Minimized contamination.

### PHARMACOGENOMIC TESTING

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P127H	Human HLA-B*5801 Gene Detection Kit (Fluorescence PCR Method)	32T
2	P153H	Human CYP2C19 Genotyping Detection Kit (PCR-Melting Curve Method)	48T
3	P157H	CYP2D6*10/CYP2C9*3/ADRB1(1165G>C)/ AGTR1(1166A>C)/ACE(I/D) Detection Kit (PCR-Melting Curve Method)	48T
4	P163H	NPPA(2238T> C)/CYP3A5*3 Detection Kit (PCR-Melting Curve Method)	48T
5	P152H	Human MTHFR(C677T) Gene Polymorphism Detection Kit (PCR-Melting Curve Method)	48T
6	P165H	Human MTHFR/MTRR Gene Polymorphism Detection Kit (PCR-Melting Curve Method)	48T
7	P135H	Human HLA-B*1502 Gene Detection Kit (Fluorescence PCR Method)	25T

#### **Featured Products**

# Human MTHFR/MTRR Gene Polymorphism Detection Kit

(PCR-Melting Curve Method)

CATALOG NO.: P165H

GENES TESTED: MTHFR (c.677 C>T), MTHFR (c.1298 A>C), MTRR (c.66 A>G)

**SAMPLE TYPE**: Whole blood

APPLICABLE TO: Pre-pregnant men and women, pregnant women, patients with cardiovascular and

cerebrovascular diseases, etc.

**CLINICAL SIGNIFICANCE:** 

Instructions on reasonable folic acid supplementation for pregnant women and patients with

cardiovascular diseases.

Warning about the risk of the birth defects and cardiovascular and cerebrovascular diseases, etc.

# **Human CYP2C19 Genotyping Detection Kit**

(PCR-Melting Curve Method)

CATALOG NO.: P153H

GENES TESTED: CYP2C19 genotypes \*1, \*2, \*3 and \*17

SAMPLE TYPE: Whole blood

APPLICABLE TO: Patients taking clopidogrel, omeprazole, fluoxetine and other drugs

CLINICAL SIGNIFICANCE:

Medication instructions on CYP2C19 metabolizing enzyme-related drugs, such as omeprazole

and clopidogrel.

# CYP2D6\*10/CYP2C9\*3/ADRB1(1165G>C)/ AGTR1(1166A>C) /ACE(I/D) Detection Kit (PCR-Melting Curve Method)

CATALOG NO.: P157H

GENES TESTED: 15 genotypes of CYP2D6\*10, CYP2C9\*3, ADRB1 (1165G>C), AGTR1 (1166A>C), ACE (I/D) genes

SAMPLE TYPE: Whole blood

**APPLICABLE TO:** Hypertensive patients taking medications

**CLINICAL SIGNIFICANCE:** 

Able to detect the 5 major locus genes; To guide the medication for  $\beta$ -receptor blockers, angiotensin II receptor antagonists and Angiotensin-converting enzyme inhibitors (ACE inhibitors)

for patients with hypertension.

-15-

### **ONCOLOGY TESTS**

No.	Catalog No.	Product Name	No. of Tests/Kit
1	P110H	EB Virus Nucleic Acid Detection Kit (Fluorescence PCR Method)	32T
2	P111H	Human B-raf Gene V600E Mutation Detection Kit (Fluorescence PCR Method)	20T
3	P112H	Human K-ras Gene Mutation Detection Kit (PCR-Melting Curve Method)	20T
4	P126H	Human Methylated Septin9 DNA Detection Kit (Fluorescence PCR Method)	32T

## Human B-raf Gene V600E Mutation Detection Kit

(Fluorescence PCR Method)

CATALOG NO.: P111H

LOCI DETECTED: Codon 600 of exon 15 (V600E) of B-raf gene

SENSITIVITY: Low mutation load at 1% (under 10ng wild-type background)

SAMPLE TYPE: FFPE tissue sections, biopsy samples of colorectal tumor, melanoma, thyroid tumor, lung tumor, etc.

**CLINICAL SIGNIFICANCE:** 

B-raf is an important transactivator of EGFR pathway. B-raf detection can be helpful for the medication instructions for targeted drugs including EGFR antibodies, Tyrosine-kinase inhibitor

and B-raf inhibitors.

# **Human K-ras Gene Mutation Detection Kit**

(PCR-Melting Curve Method)

CATALOG NO.: P112H

LOCI DETECTED: 12 point mutations at codons 12 and 13

SENSITIVITY: Low mutation load at 1% (under 10ng wild-type background)

SAMPLE TYPE: FFPE tissue sections and biopsy samples of colorectal cancer, non-small cell lung cancer, etc.

**CLINICAL SIGNIFICANCE:** 

K-ras is a member of the EGFR downstream signaling pathway. Detection of K-ras can be helpful for the medication instructions for targeted drugs including EGFR antibodies and Tyrosine-kinase

inhibitors.

# Sample Collection Set

Sample collection is the initial step in nucleic acid testing. The quality of the sample collection products can have a direct impact on the accuracy of the final testing results. Tianlong Sample Collection Set include collection tubes with Specimen transport media (STM) (inactivated and non-inactivated) and swabs (oropharyngeal and nasopharyngeal) applicable for single sample collection or multiplex sampling.



#### Flexible

Various options for your needs: Inactivated and non-inactivated, oropharyngeal and nasopharyngeal swabs, single and multiplex collection, etc.

#### Saf

Simultaneous sampling and virus inactivation, to minimize the risk of infection.

#### Stable

Demonstrated sample stabilization, to avoid nucleic acid degradation and ensure the precise results.

#### Automation-ready

The collection tube is automation ready for Tianlong automated nucleic acid workstations such as PANA9600E and PANA9600S. The single sampling tube is automation ready for Tianlong automated sample processing system GeneMix 48. The opening and closing of the lid can also be automated, which greatly improves the efficiency of sample detection.

#### **Catalogue Information**

No.	Product Name	Model and Specifications	Specifications
1	Sample Collection Set	SP-a-01 (inactivated, single sampling)	48 Tests/Kit
2		SP-b-01 (inactivated, multiplex sampling)	48 Tests/Kit
3		SP-a-02; (non-inactivated, single sampling)	48 Tests/Kit
4			

#### Remark

Oropharyngeal and nasopharyngeal swabs are available for each product





# INSTRUMENTS















# **II** PANA 9600S

# **Automated Nucleic Acid Workstation**

PANA 9600S Automated Nucleic Acid Workstation is designed and developed based on the principles of nucleic acid extraction by magnetic bead method and rotary nucleic acid extraction technology (Patent No. ZL2017104359318, Tianlong's innovative intellectual property right), and integrates sample information scanning, sample loading, nucleic acid extraction, PCR system setup and various functions for your lab needs. With compatible high-performing Tianlong nucleic acid extraction kits, PANA 9600S can extract the required high-quality nucleic acids from a variety of samples such as whole blood, serum, plasma, swab medium, urine, etc., in a short time, ensuring high-sensitivity nucleic acids for the downstream detection and assays.



Sample Information Scanning



Sample Loading



Nucleic Acid Extraction



Set Up PCR System

#### Sample Throughput: 96

#### International Approvals and Certification:

China, the European Union, the United States, the United Kingdom, Japan, etc.

# PANA 9600S Autionatic Nucleic Acid Wordstation

# LEADING THE NEW ERA OF ROTARY NUCLEIC ACID EXTRACTION

#### **Features**

#### Minimized Contamination

Designed to reduce cross-contamination by rotary nucleic acid extraction, smart drop capture, strict zoning, air filtration, and UV disinfection.

#### Fast and High-Throughput

Automated sample information scanning, sample loading, nucleic acid extraction, and PCR system setup for 96 samples within 70min.

#### Highly Flexible for Your Needs

Compatible with various sample types, single-strip kits, extraction from 3-6 wells, 4 PCR systems can be set up at the same time

#### Accurate and Reliable

Precise sample loading, accurate temperature ramp control, to enable consistent results for each of your assays. Even super-reliable with compatible kits by Tianlong.

#### Easy-to-Use and Automated Workflow

Prepackaged extraction kits, automated workflow of PCR system setup, proteinase K dilution, sample and product retention for your hands-free operations.

# **III** Nucleic Acid Extractors

Tianlong Nucleic Acid Extractors are designed and developed based on the principles of nucleic acid extraction by magnetic bead method, and offer multiple models and throughputs for your laboratory needs. With compatible high-performing Tianlong nucleic acid extraction kits, Tianlong Nucleic Acid Extractors can complete the extraction from 96 samples within 20min, applicable for a variety of samples such as whole blood, serum, plasma, swab medium, urine, etc., in a short time, ensuring high-sensitivity nucleic acids for the downstream detection and assays.

## **GeneRotex 96/48 Nucleic Acid Extractor**



#### Sample Throughput:

96/48

#### **Recommended Sample Volume:**

200μL/1000μL

#### International Approvals and Certification:

China, the European Union, the United States, the United Kingdom, Japan, etc.

#### Sample Type:

Serum, plasma, whole blood, swab medium, amniotic fluid, feces, animal and plant tissues, FFPE sections, bacteria, fungi, etc.

# GeneRatex 96

#### **Features**

#### Safe and reliable

The use of rotary nucleic acid extraction, combined with air filtration and UV light disinfection measures, can greatly reduce the risk of contamination.

#### Capable and flexible

Various high-throughput modules, for different sample sizes.

#### Fast and easy

With external scanner, easy to start the running with a simple press; motor-driven opening and closing of experimental chamber hatches.

# **Libex Nucleic Acid Extractor**

## NMPA CE FDA

#### Sample Throughput:

32

#### **Recommended Sample Volume:**

200µL

#### International Approvals and Certification:

China, the European Union, the United States, the United Kingdom, etc.

#### Sample Type:

Serum, plasma, whole blood, swab medium, amniotic fluid, feces, lavage fluid, tissue, FFPE sections, bacteria, fungi, etc.



#### **Features**

Easy to operate

Machine keypads and smart tablet options.

Safe and reliable

Cloud-enabled control via Wifi; Built-in UV lamp for disinfection.

Various Throughput Options

Compatible with Tianlong pre-filled reagents (tube strips and plates); Capable of high-efficiency nucleic acid extraction of 1-32 samples.



# **W** Real-Time PCR Systems

PCR thermal cyclers and real-time PCR systems are essential for nucleic acid detection and play an important role in precision medicine. Tianlong has independently developed a series of PCR thermal cyclers, and real-time PCR systems with various models and throughputs of high-precision and easy-to-use designs, suitable for a variety of application in clinical diagnosis, epidemic surveillance, food safety, life sciences, forensics and other fields.

# Gentier 96E/96R **Real-Time PCR System**





Tailored to meet the needs of high-end laboratories

#### Sample Throughput: 96

#### International Approvals and Certification:

Ching, the European Union, the United States. the United Kingdom, etc.

#### **Features**

Maintenance-free LED light source; Various fluorescence channels: 6 fluorescence channels for Gentier 96E and 4 fluorescence channels for Gentier 96R.

#### Powerful temperature control

Maximum heating ramp rate ≥6.1°C/s; Maximum cooling ramp rate ≥5.0°C/s; Temperature accuracy of ±0.1°C.

#### Easy to operate

10.4-inch full-color touch screen; Stand-alone operations or control via PC; Stand-alone data storage for at least 1000 experiments.

#### Powerful software

Qualitative analysis, absolute quantitative analysis, relative quantitative analysis, end-point fluorescence analysis, and melting curve analysis available.

# **Genesy 96T PCR Thermal Cycler**

# NMPA CE

#### Sample Throughput: 96

#### International Approvals and Certification:

China, the European Union, the United States, the United Kingdom, etc.

#### **Features**

#### Efficient temperature control

Maximum heating ramp rate ≥5.5°C/s; Temperature accuracy of ±0.1°C.

#### Easy to operate

7-inch TFT true color LCD touch screen; Preset multiple experimental program templates.

#### User friendly

Featured Power Failure Protection design, no more concern about instantaneous power failure.

Designed for conventional PCR, reverse transcription PCR, gradient PCR, long-range PCR, etc. Up to 12 temperature gradients.

# Gentier 48E/48R **Real-Time PCR System**

Designed for small and medium-sized laboratories, field testing, and mobile laboratories, etc.

#### Sample Throughput: 48

#### International Approvals and Certification:

China, the European Union, the United States, the United Kingdom, etc.

#### **Features**

#### Easy to use and user friendly

Immediate analysis of experimental data on the instrument, without the need for a computer; Direct printing function by connecting to a thermal printer.

#### Powerful temperature control

Maximum heating ramp rate ≥8.0°C/s; Maximum cooling ramp rate ≥6.2°C/s; Temperature accuracy of ±0.1°C.

Maintenance-free LED light source; Various fluorescence channels: 4 fluorescence channels for Gentier 48E and 2 fluorescence channels for Gentier 48R.

#### Easy to operate

7-inch full-color touch screen; Stand-alone operations or control via PC; Stand-alone data storage for at least 1000 experiments.

#### Powerful software

Qualitative analysis, absolute quantitative analysis, relative quantitative analysis, end-point fluorescence analysis, and melting curve analysis available.











# **Automated Sample Processing System**

Tianlong GeneMix 48 Automatic Sample Processing System is a truly automated system that integrates tube lid opening/closing, sample dispensing, proteinase K/internal reference adding of 48 sample tubes in one go, frees you from tedious procedures, and offers optimized efficiency and safety.

#### Sample Throughput: 48

#### International Approvals and Certification:

China, the United States, the Netherlands, etc.



#### **Features**

#### Automated process

Automated procedures including tube lid opening/closing, sample dispensing, proteinase K/internal reference adding, etc. Safe

Droplet capture, airtight and anti-drip design; Operating in biosafety cabinet; Cloud-enabled control from smart tablets. Efficient

The whole process of 48 samples can be completed within 20 minutes; 10min for sample dispensing.

#### Easy to operate

Stand-alone mode or cloud-enabled control via smart tablets.

#### Smart

Real-time monitoring of material and equipment status, and pressure sensors to detect the liquid level.

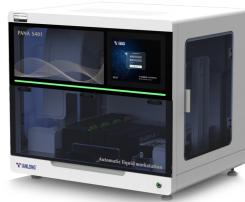
#### User-friendly

Voice reminders during the process; Preset automatic mixing.



# **Automated Pipetting Workstation**

Tianlong PANA S401/S201 Automated Pipetting Workstation can complete the automated PCR setup for 96 samples within 10 minutes, and is suitable for pipetting in nucleic acid detection with optimized detection capabilities and efficiency.



#### **Features**

#### Automation-ready

Automated PCR Setup; Supporting 96 sample within 10min.

#### Fast and easy

Starting preparation programs with just one click; Multiple setups for different tests in one go.

#### Flexible

2- and 4-channel options; Up to 768 samples per setup.

#### Open compatibility

Compatible with 0.1 mL/0.2 mL 8-tube strips, 96-well PCR plate, 384-well PCR plates.

#### Safe

Air pressure adjustment, HEPA filtration and UV lamp irradiation for contamination control.

