Bring Technology to Life

TIAN LONG

Panall 8000

All-in-one Molecular Diagnosis System

Fewer steps. Walkaway workflow. High quality results.

Sample in-result out system

One key operation and walkaway workflow

Closed system minimizes contamination



12.1 ″

12.1-inch intuitive touchscreen

No extra equipment needed

No interpretation of results needed

8 samples can be tested at the same time

Quality results you can rely on

Tianlong Panall 8000 All-in-one Molecular Diagnosis System is a simple and secure molecular diagnosis system that integrates the functions of sample tube decapping/capping, sample loading, nucleic acid extraction, PCR setup, PCR detection and result analysis, which can realize a true sample in -result out detection process and bring great convenience for professionals with only one-key operation.

Bring Technology to Life

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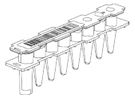
COMPATIBLE CONSUMABLES



Specialized sample tube



Specialized nucleic acid extraction kit



Specialized nucleic acid detection kit



Sample in -result out system

TESTING MENU

Category	Product Name	Target
Respiratory Infections	Respiratory 7 Types Pathogen Multiplex Nucleic Acid Detection Kit	FluA, FluB, RSV, ADV, HRV, HPIV and MP
	Respiratory 8 Types Pathogen Multiplex Nucleic Acid Detection Kit	FluA, FluB, RSV, ADV, HRV, HPIV, MP and SARS-CoV-2
	Respiratory 17 Types Pathogen Multiplex Nucleic Acid Detection Kit	FluA, FluA/H1, FluA/H3, FluB, RSV, ADV, HRV,HPIV1, HPIV2/4, HPIV3, CP, MP, CorHKU1/OC43, CorNL63/229, HMPV, HBoV and SARS-CoV-2
Gastrointestinal Infections	Gastrointestinal Bacteria Virulence Gene Nucleic Acid Detection Kit	21 types of common gastrointestinal bacteria virulence genes including ipaH, cdtA, aggR, eae, O1rfb, ompW, cdtB, stIa, stx2,SEN1383, invA, cdtC, ETEC—lt, tlh, O139rfb, ctxA, foxA, stIb, stx1, STY4669, STM0159
	Diarrhea Syndrome 21 Types Pathogens Multiplex Nucleic Acid Detection Kit	21 types of pathogens causing diarrhea including EIEC, ETEC, EPEC, EHEC, EAEC, SHIG, ASTV, SAPV, EADV, PS, VCH, VFLU, SAL, C. diff, CAMP, Rotavirus A/B/C, NoV GI, NoV GII, YE
Encephalitis / Meningitis Infections	Encephalitis and Meningitis 11 Types Pathogens Multiplex Nucleic Acid Detection Kit	11 types of pathogens including E. coli, H. influenzae, L. monocytogenes, N. meningitidis, GBS, GAS, S. pneumoniae, S. aureus, S. suis, MTB, Crypto

Category	Product Name	Target
Pharmacogenomics	Human MTHFR (C677T) Gene Polymorphism Detection Kit	MTHFR (c.677 C>T)
	Human MTHFR\MTRR Gene Polymorphism Detection Kit	MTHFR (c.1298 A>C), MTRR (c.66 A>G)
	CYP2D6*10\CYP2C9*3\ ADRB1(1165G>C)\ AGTR1(1166A>C)\ ACE(I/D) Detection Kit	CYP2D6*10, CYP2C9*3, ADRB1 (c.1165 G>C), AGTR1 (c.1166 A>C), ACE (I/D)
	NPPA (2238T>C)\ CYP3A5*3 Detection Kit	NPPA (c.2238 T>C), CYP3A5*3
	Human APOE & SLCO1B1 Genes Polymorphism Detection Kit	ApoE (c.388 T>C), ApoE (c.526 C>T), SLCO1B1 (c.388 A>G), SLCO1B1 (c.521 T>C)
	Human CYP2C19 Genotyping Detection Kit	CYP2C19*1, CYP2C19*2 (c.681 G>A), CYP2C19*3 (c.636 G>A), CYP2C19*17 (c.-806 C>T)
Bloodborne Infections	Nucleic Acid Testing Kit for HBV DNA, HCV RNA and HIV RNA (Type1+2)	HBV, HCV, HIV(Type 1+2)
	Hepatitis B Virus (HBV) Nucleic Acid Detection Kit	HBV
	Hepatitis C Virus (HCV) Nucleic Acid Detection Kit	HCV
	Immunodeficiency Virus Type 1(HIV-1) Nucleic Acid Detection Kit	HIV (Type 1)

*Other test projects are under development and will come soon.

RESULT ANALYSIS



Figure 1: Positive standard amplification curve and result analysis (Respiratory 17)



Figure 2: Negative standard amplification curve and result analysis (Respiratory 17)



Figure 3: Positive standard amplification curve and result analysis (Gastrointestinal 21)



Figure 4: Negative standard amplification curve and result analysis (Gastrointestinal 21)

PARAMETERS

Model	Panall 8000
Sample Throughput	1~8 samples at the same time
Pipetting Range	20μL ~250μL
Detection time	1~2 hours,relying on the reagent
Channel and Available Fluorescein	Channel 1: FAM, SYBR Green I, etc. Channel 2: VIC, HEX, TET, JOE, etc. Channel 3: ROX, Texas Red, etc. Channel 4: Cy5, etc.
Pipetting Performance	20μL ≤ V<40μL: accuracy: A≤5.0%, repeatability: CV≤3.0% 40μL ≤ V<100μL: accuracy: A≤3.0%, repeatability: CV≤1.5% V ≥100μL: accuracy: A≤1.0%, repeatability: CV≤1.0%
Extraction Heating Rate	Average heating rate: ≥ 1.5℃/s;
Extraction Temperature Accuracy	≤ 1.0℃
PCR Heating Rate	Average heating rate: ≥ 4.5℃/s Maximum heating rate: ≥ 6.1℃/s
PCR Cooling Rate	Average cooling rate: ≥ 3.5℃/s; Maximum cooling rate: ≥ 5.0℃/s.
PCR Temperature Accuracy	≤ 0.1℃
Sample Testing Linearity and Repeatability	Linear correlation: /r/ ≥ 0.998 Repeatability: CV≤ 1.5%
Information Management	Sample information: with scanner inside, Panall 8000 can scan and record the sample information; Reagent information: visual system can automatically identify the kit information and run the corresponding program
Minimized Contamination	Directional exhaust & negative pressure system; HEPA filtration; UV disinfection; Shortest fixed path for sample operation
Data Storage	1000 experiment files can be stored
Language	Chinese and English
Power Supply and Power Consumption	AC 100~240V, 50/60Hz; 1200VA
Communication Specification	Internet Port: TCP/IP protocol, Ethernet connection USB Port: USB 2.0
Dimension	750mm(L) × 350mm (W) × 600mm (H)
Weight	80Kg

APPLICATION AREA


Health Clinic



Hospital Emergency and Outpatient Department



CDC


Research Institute

Attached File

Compatible Detection Reagents From Tianlong

Lyophilized Type Reagent



- Ready-to-use freeze-dried type
- Multiple pathogens detection in a single run
- Stable at room temperature and cost-effective for transportation
- Anti-contamination design with liquid paraffin preventing evaporation
- High sensitivity and high accuracy

Respiratory Infections

Product Name	Respiratory 7 Types Pathogen Multiplex Nucleic Acid Detection Kit (Fluorescence PCR Method; Freeze-dried)	Respiratory 8 Types Pathogen Multiplex Nucleic Acid Detection Kit (Fluorescence PCR Method; Freeze-dried)	Respiratory 17 Types Pathogen Multiplex Nucleic Acid Detection Kit (Fluorescence PCR Method; Freeze-dried)
Cat.No	P763H	P347H	P764H
Specification	24T/Kit(Freeze-dried)		
Specimen	Oropharyngeal swab		
Sensitivity	200 copies/mL		
Precision	≤5%		
Storage & Validity	2-30℃ for 12 months		
Compatible Extraction Kit	T819H-Tianlong Nucleic Acid Extraction Kit (For Viral DNA and RNA)		

Gastrointestinal Infections

Product Name	Gastrointestinal Bacteria Virulence Gene Nucleic Acid Detection Kit (Fluorescence PCR Method; Freeze-dried)	Diarrhea Syndrome 21 Types Pathogens Multiplex Nucleic Acid Detection Kit (Fluorescence PCR Method; Freeze-dried)
Cat.No	P344H	P975H
Specification	24T/Kit(Freeze-dried)	
Specimen	Stool samples, anal swab samples	
Sensitivity	500 copies/mL	
Precision	CV≤5%	
Storage & Validity	2-30℃ for 12 months	
Compatible Extraction Kit	T838H-Tianlong Nucleic Acid Extraction Kit (For Enteropathogen DNA and RNA)	

Meningitis/Encephalitis Infections

Product Name	Encephalitis and Meningitis 11 Types Pathogens Multiplex Nucleic Acid Detection Kit (Fluorescence PCR Method; Freeze-dried)
Cat.No	P976H
Specification	24T/Kit(Freeze-dried)
Specimen	Whole blood, oropharyngeal swab
Sensitivity	500 copies/mL
Precision	CV≤5%
Storage & Validity	2-30℃ for 12 months
Compatible Extraction Kit	T847H-Tianlong Nucleic Acid Extraction Kit (For Pathogen DNA and RNA)

Liquid Type Reagent



- Non-pre-filled format for greater cost efficiency
- Ready-to-use, simplifying operation
- High consistency and accuracy
- Multiple specifications for diverse testing needs

Pharmacogenomics

Folic Acid

Product Name	Human MTHFR (C677T) Gene Polymorphism Detection Kit (PCR Melting Curve Method)		Human MTHFR\MTRR Gene Polymorphism Detection Kit (PCR Melting Curve Method)	
Cat.No	P130H	P152H	P164H	P165H
Specification	24T/Kit	48T/Kit	24T/Kit	48T/Kit
Target Gene	MTHFR (c.677 C>T)		MTHFR (c.1298 A>C) MTRR (c.66 A>G)	
Specimen	EDTA anticoagulated whole blood			
LoD	2 ng/μL human genomic DNA			
Precision	Tm value range ≤ 1.5℃			
Storage & Validity	-25℃~-15℃ for 12 months			
Compatible Extraction Kit	T565H-Tianlong Nucleic Acid Extraction Kit (For Pharmacogenomics)			

Hypertension

Product Name	CYP2D6*10\CYP2C9*3\ADRB1 (1165G>C)\ AGTR1 (1166A>C)\ACE (I/D) Detection Kit (PCR-Melting Curve Method)		NPPA (2238T>C) \CYP3A5*3 Detection Kit (PCR-Melting Curve Method)	
Cat.No	P129H	P157H	P162H	P163H
Specification	24T/Kit	48T/Kit	24T/Kit	48T/Kit
Target Gene Loci	CYP2D6*10 CYP2C9*3 ADRB1 (c.1165 G>C) AGTR1 (c.1166 A>C) ACE (I/D)		NPPA (c.2238 T>C) CYP3A5*3	
Specimen	EDTA anticoagulated whole blood			
Precision	Tm value range ≤ 1.5℃			
Storage & Validity	-25℃~-15℃ for 12 months			
Compatible Extraction Kit	T565H-Tianlong Nucleic Acid Extraction Kit (For Pharmacogenomics)			

Statins

Product Name	Human APOE & SLCO1B1 Genes Polymorphism Detection Kit(Fluorescence PCR Method)
Cat.No	P173H
Specification	32T/Kit
Target Gene Loci	ApoE (c.388 T>C) ApoE (c.526 C>T) SLCO1B1 (c.388 A>G) SLCO1B1 (c.521 T>C)
Specimen	EDTA anticoagulated whole blood
Precision	CV≤5%
Storage & Validity	-25℃~-15℃ for 12 months
Compatible Extraction Kit	T565H-Tianlong Nucleic Acid Extraction Kit (For Pharmacogenomics)

Clopidogrel

Product Name	Human CYP2C19 Genotyping Detection Kit (PCR-Melting Curve Method)	
Cat.No	P128H	P153H
Specification	24T/Kit	48T/Kit
Specimen	EDTA anticoagulated whole blood	
Target Gene Loci	CYP2C19*1 CYP2C19*2 (c.681 G>A) CYP2C19*3 (c.636 G>A) CYP2C19*17 (c.-806 C>T)	
Storage & Validity	-25℃~-15℃ for 12 months	
Compatible Extraction Kit	T565H-Tianlong Nucleic Acid Extraction Kit (For Pharmacogenomics)	

Compatible Detection Reagents From KHB



- Highly compatible on Tianlong Panall 8000
- Detection of top 3 bloodborne pathogens: HBV, HCV, HIV（Type 1+2）
- High sensitivity and high specificity
- Wide subtypes coverage

Bloodborne Infections

Product Name	KHB Nucleic Acid Testing Kit for HBV DNA, HCV RNA and HIV RNA (Type 1+2) (Real-time PCR)	KHB Hepatitis B Virus (HBV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	KHB Hepatitis C Virus (HCV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	KHB Human Immunodeficiency Virus Type 1(HIV-1) Nucleic Acid Detection Kit (Fluorescence PCR Method)
Specimen	Serum/plasma			
Analysis Method	Qualitative	Quantitive	Quantitive	Quantitive
95% LOD	HBV: 1.087 IU/mL HCV: 3.385 IU/mL HIV-1: 12.957 IU/mL HIV-2: 22.592 IU/mL	5 IU/mL	12.5 IU/mL	20 IU/mL
Precision	CV≤5%	CV≤5%	CV≤5%	CV≤5%
Storage & Validity	-20℃±5℃ for 12 months			
Cat.No	KH-G-M-568-96-W1	KH-G-M-569-96-W KH-G-M-569-32-W	KH-G-M-570-96-W KH-G-M-570-32-W	KH-G-M-582-96-W KH-G-M-582-32-W
Specification	96T/Kit	96T/Kit 32T/Kit	96T/Kit 32T/Ki	96T/Kit 32T/Ki
Compatible Extraction Kit	T552H-Tianlong Nucleic Acid Extraction Kit (For blood screening)	T562H-Tianlong Nucleic Acid Extraction Kit (For HIV/HBV/HCV)		

Compatible Nucleic Acid Extraction Reagents



- Pre-filled design with all reagents in one strip
- High sensitivity and high stability
- Leak-proof design to reduce contamination
- Storage and transportation at room temperature

Product Name	Cat.No	Specification	Sample Type
Nucleic Acid Extraction Kit (For Viral DNA and RNA)	T819H	24T/Kit(Pre-filled) 1T/ Strip x 24 Strips	Oropharyngeal swab samples
Nucleic Acid Extraction Kit (For Enteropathogen DNA and RNA)	T838H	24T/Kit(Pre-filled) 1T/ Strip x 24 Strips	Stool samples, anal swab samples
Nucleic Acid Extraction Kit (For Pathogen DNA and RNA)	T847H	24T/Kit(Pre-filled) 1T/ Strip x 24 Strips	Whole blood, oropharyngeal swab samples
Nucleic Acid Extraction Kit (For Pharmacogenomics)	T565H	24T/Kit(Pre-filled) 1T/ Strip x 24 Strips	Whole blood
Nucleic Acid Extraction Kit (For Blood Screening)	T552H	24T/Kit(Pre-filled) 1T/ Strip x 24 Strips	Serum,plasma
Nucleic Acid Extraction Kit (For HIV/HBV/HCV)	T562H	24T/Kit(Pre-filled) 1T/ Strip x 24 Strips	Serum,plasma