# **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°C/s;		
Extraction Temperature Accuracy	≤ 1.0°C		
PCR Heating Rate	Average heating rate: ≥ 4.5°C/s Maximum heating rate: ≥ 6.1°C/s		
PCR Cooling Rate	Average cooling rate: ≥ 3.5°C/s; Maximum cooling rate: ≥ 5.0°C/s.		
PCR Temperature Accuracy	cacy ≤ 0.1°C		
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		

Version 4.0

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# Tianlong Science and Technology

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# Bring Technology to Life



# Panall 8000 All-in-one Molecular Diagnosis System

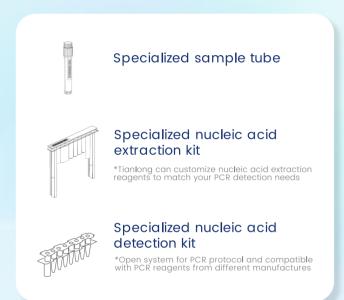
Embrace flexibility with *open system* to create broad molecular test menu



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.

Panall 8000 is designed as an open platform that is compatible with molecular diagnostic tests from different manufacturers. Tianlong intends to collaborate with best-in-class IVD assay developers to bring new tests to the Panall 8000 All-in-one Molecular Diagnosis System for a broad range of disease categories.

# COMPATIBLE CONSUMABLES





Sample in -result out system

# **TEST PORTFOLIO**

Tianlong offers an extensive menu of tests on the system covering respiratory infections, sexually transmitted infections, encephalitis/meningitis infections, gastrointestinal infections, and pharmacogenomics. Tianlong also offers customized reagents for the Panall 8000 All-in-one Molecular Diagnosis System that enables labs to program user-defined PCR analysis protocols and streamline their PCR tests.

# **Respiratory Infections**

**Sexually Transmitted** Infections

**Bloodborne Infections** 

**Pharmacogenomics** 



### Gastrointestinal Infections

**Encephalitis/Meningitis** Infections

**Customized reagents** (open system for PCR protocol)

# **OPEN SYSTEM**

Tianlong Panall 8000 is an open system that enables laboratories to program user-defined PCR analysis protocols. Laboratories can use user-defined protocols in addition to those developed by Tianlong. The simple and efficient design of the Tianlong Panall 8000 allows you to test a wide range of sample types and meet emerging diagnostic requirements through customized reagents. Tianlong intends to work with our partners to bring more new tests to the Panall 8000 for detection of a broad range of disease categories.



#### Compatible with PCR reagents from different manufactures









#### Customize collaboration mode for a more diversified menu



#### Available for more application scenarios

An open system with a diversified testing menu can meet your emerging diagnostic requirements and apply in more scenarios. Tianlong Panall 8000 compatible with your reagents can optimize the detection

# The open system workflow on Tianlong Panall 8000

#### Set user-defined protocols



Laboratories can program user-defined PCR analysis protocols according to their testing

# Tranfer PCR reagents



Professionals can transfer your PCR reagents to the Tianlong specialized PCR tubes.

#### Load samples and reagents



Load the sample tubes, extraction reagent, and PCR reagent to Tianlong Panall 8000 and start vour experiment

#### Analysis and report



Panall 8000 can start detection with one-key operation and report in about 1-2 hours, relying on the reagent.

# APPLICATION AREA



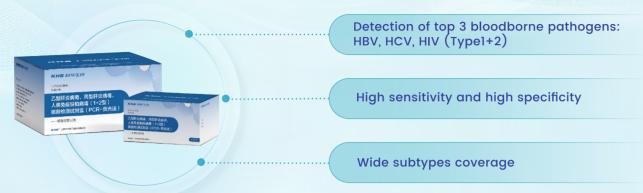






# APPLICATION CASE

# Bloodborne pathogen detection reagents from KHB on Tianlong panall 8000



Testing item	Product Name	Target Pathogen	
	KHB Nucleic Acid Testing Kit for HBV DNA, HCV RNA and HIV RNA (Type 1+2)	HBV, HCV, HIV(Type 1+2)	
Bloodborne	KHB Nucleic Acid Testing Kit for HBV DNA	HBV	
Infections	KHB Nucleic Acid Testing Kit for HCV RNA	HCV	
	KHB Nucleic Acid Testing Kit for HIV RNA (Type 1)	HIV (Type 1)	

# Kit Specifications

Product Name	KHB Nucleic Acid Testing Kit for HBV DNA, HCV RNA and HIV RNA (Type 1+2) (Real-time PCR)	KHB Nucleic Acid Testing Kit for HBV DNA (Real-time PCR)	KHB Nucleic Acid Testing Kit for HCV RNA Real-time PCR)	KHB Nucleic Acid Testing Kit for HIV RNA (Type I) (Real-time PCR)	
Specimen	Serum/plasma				
Analysis Method	Qualitative	Quantitive	Quantitive	Quantitive	
LoD	HBV: 2.5 IU/mL HCV: 9 IU/mL HIV-1: 20 IU/mL HIV-2: 40 IU/mL	5 IU/mL	12.5 IU/mL	20 IU/mL	
Precision	CV≤5%	CV≤5%	CV≤5%	CV≤5%	
Storage & Validity	−20°C ±5°C 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/Kit	96T/Kit 32T/Kit	
	T552H-Tianlong Nucleic Acid Extraction Kit (For blood screening)	T562H-Tianlong Nucleic Acid Extraction Kit (For HIV/HBV/HCV)			
Compatible Extraction Kit	1 IANLONG		1 IANLONG		

# ATTACHED FILE

# SOP for setting your PCR protocol in panall 8000 open system

# 1 Start setting

Login in superadmin mode. Choose in turn Setting>Item Management>Item Edit



# 3 Sample loading and PCR system setup

Choose sample loading, mixing and dispensing mode and set parameters



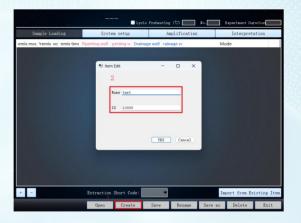
# 5 Set PCR protocol

Choose the amplification method and set the amplification cycles and steps



# 2 Set new experiment

Edit the new experiment name and ID



# 4 Choose extraction protocol

Choose the extraction reagent protocol according to your detection needs



# **F** Set target gene and internal control

Result analysis by independent gene interpretation or Joint gene interpretation



\*After PCR protocol set up, user can save the protocol as an template, and start your new experiment quickly with pre-configured templates.