TIANLONG

Proven Solutions for Animal Health and Animal Species Identification

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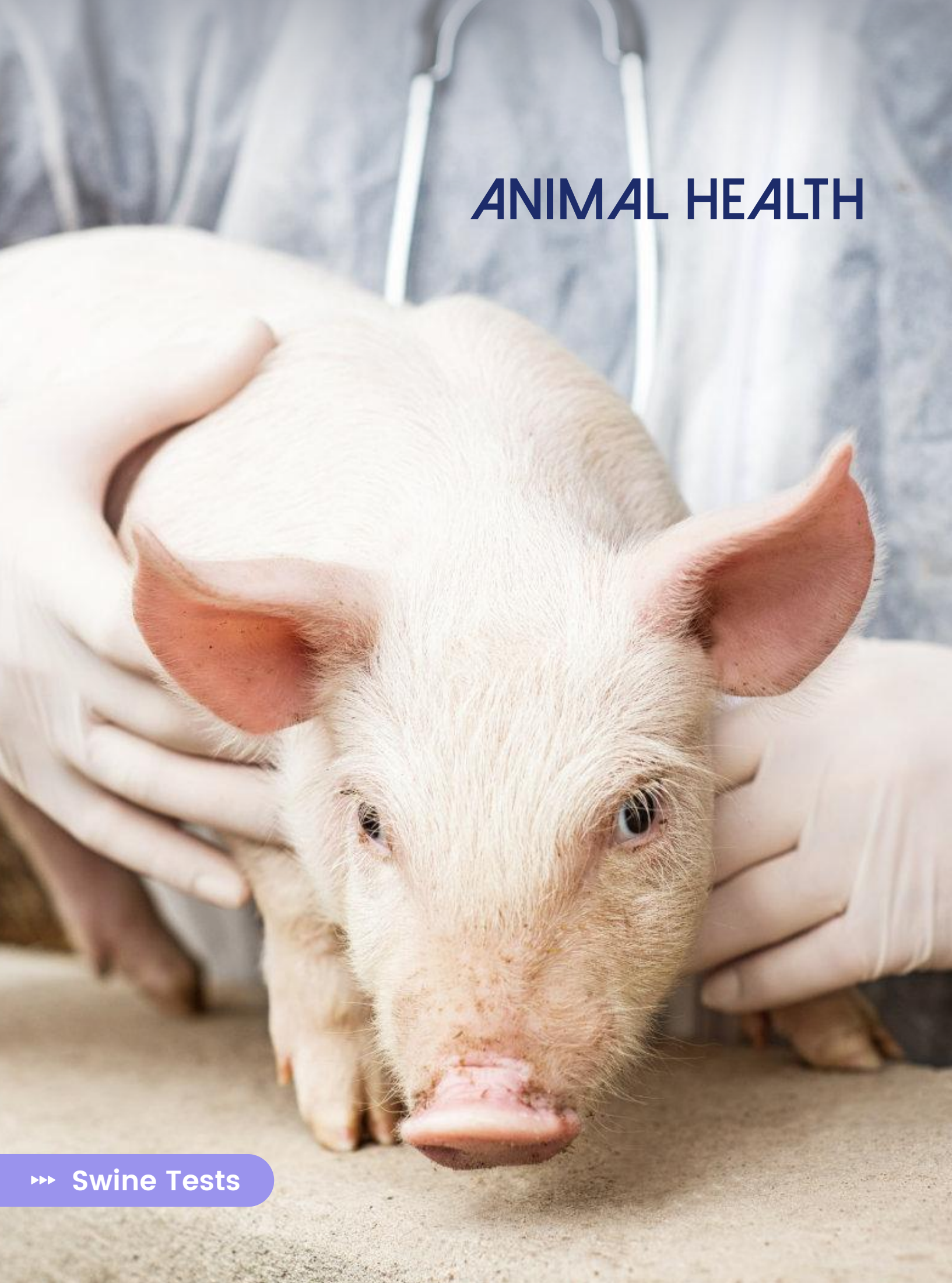


ANIMAL HEALTH

Swine Tests

Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Nucleic Acid Detection Kit

(Fluorescence PCR Method)

Porcine reproductive and respiratory syndrome, (PRRS), also named blue ear disease, is a wide-spread disease affecting domestic pigs. As the name suggests there are two syndromes associated with PRRS, reproductive failure in sows, and respiratory disease in young pigs. There is often high mortality, though infected animals can also show no disease at all. And in spite of the name, the blue ears, due to restricted blood supply, are only a transient sign of the disease.

Porcine reproductive and respiratory syndrome (PRRS) is an economically disastrous infectious disease for the global swine industry.

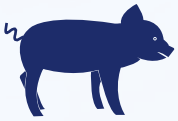
It can be classified into two genotypes, namely the European type (PPRSV-1) and the North American type (PRRSV-2). It is now found in most areas of the world where pigs are raised.

SIGNS OR SYMPTOMS

Breeding pigs:

- Decrease in conception
- Increase in premature birthing, late term abortions
- High preweaning mortality
- Anorexia
- Fever
- Respiratory distress or vomiting
- Blue colouring due to decrease blood flow (cyanosis) of the ears, abdomen and vulva

Young pigs:



- Fever
- Depression
- Lethargy
- Pneumonia
- Difficulty breathing
- Stunted growth due to systemic disease
- Increased post weaning mortality

FEATURES

Wide Coverage

Reliable detection of Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) , covering the European type (PPRSV-1) and the North American type (PRRSV-2)

Various Specimen

Compatible with multiple sample types, including cell free body fluid sample, whole blood, serum or tissue samples

Real-time RT-PCR based PRRSV detection

Provides a rapid test solution that detects PRRSV with a high degree of sensitivity and specificity

High Precision

The precision values of intra and inter Ct values were all <5%

Providing Integrated Solution

Highly efficient and reliable, Tianlong integrated PCR lab solution from devices to reagents can ensure great compatibility and minimized errors.

DATA INTERPRETATION

Figure 1: Gradient concentration PRRSV amplification curve

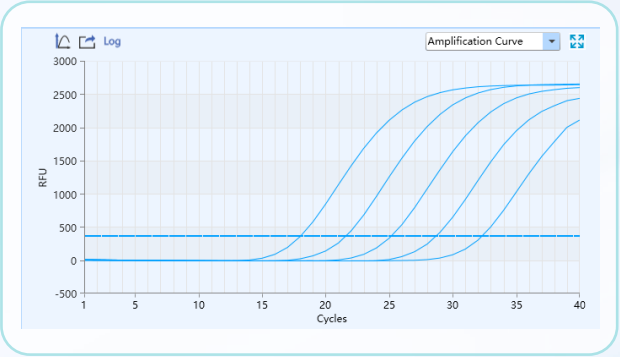
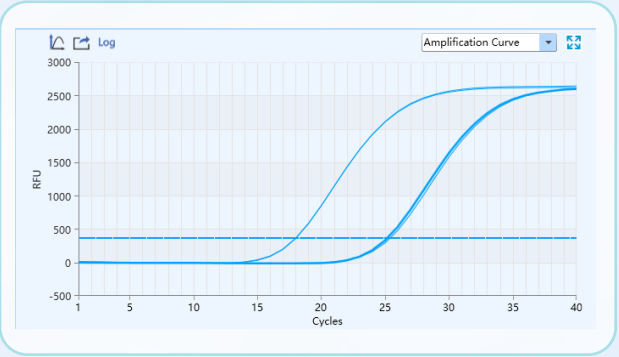


Figure 2: High concentration and low concentration PRRSV repetitive amplification curve

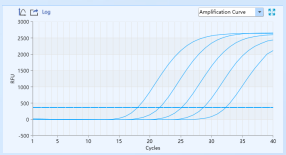


ORDERING INFORMATION

Product Name	Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Nucleic Acid Detection Kit (Fluorescence PCR Method)
Cat.No	P632H
Specification	50T/Kit
Specimen	Cell free body fluid sample ,whole blood ,serum or tissue samples
Sensitivity	500 copies/mL
Storage & Validity	-25~-15℃ for 12 months
Applicable Equipment	Instruments with FAM and VIC channels, Applied Biosystems™ 7500 Real-Time PCR Systems, TianLong Gentier Real-time PCR systems

ASSAY WORKFLOW

1 Sample Collection → **2** Nucleic Acid Extraction → **3** PCR Detection → **4** Analysis and Report



African Swine Fever Virus (ASFV) Nucleic Acid Detection Kit

(Fluorescence PCR Method)

ASF is caused by the African swine fever virus (ASFV). ASFV transmission can occur by direct contact between healthy and sick animals and indirect contact through the infected feed.

Peracute, acute, subacute, and chronic forms of ASF occur, and mortality rates vary from 0 to 100%, depending on the virulence of the virus that pigs are infected with. It can be devastating to the swine industry and those related to it when there is an outbreak of ASFV in any region or country.

The Tianlong African Swine Fever Virus Detection Kit is for the detection of African Swine Fever Virus (ASFV) DNA in cell-free body fluid samples, whole blood, serum, or tissue samples of pigs using TaqMan primer and probes. Recommend to use on Tianlong Portable Real-Time PCR System Gentier Mini, which is compact and portable with high efficiency.The kit can help early diagnosis and detect ASFV in pigs 2 days after infection and the test result can report in 1 hour.

FEATURES

Wide Coverage
Concurrently detects ASFV genotype Ⅰ, Ⅱ

Various Specimen
Cell free body fluid sample, whole blood, serum, tissue or environmental sample

Internal Control
The use of internal control system in the kit can effectively prevent false negative results

User-friendly
Widely applicable in instruments with FAM and VIC channels

High Precision
The coefficient of variation of the Ct values (CV%) is less than 5%

DATA INTERPRETATION

Figure 1: Gradient concentration ASFV amplification curve

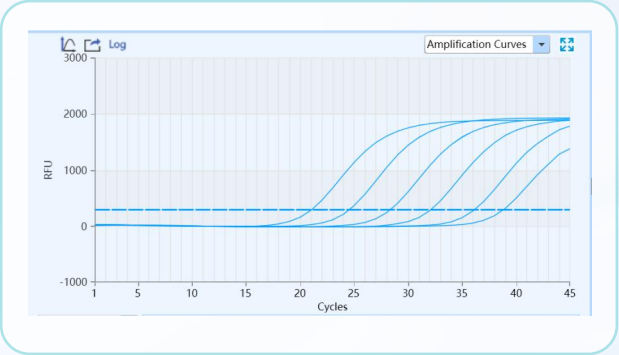
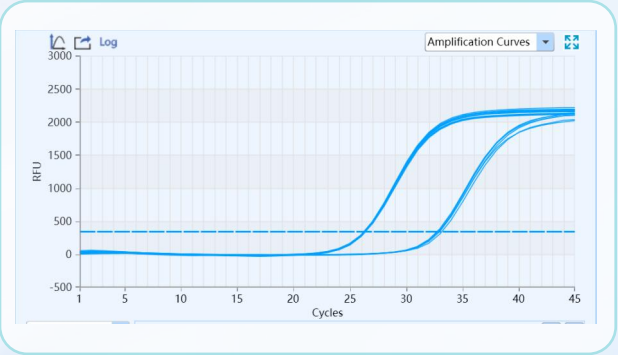


Figure 2: High concentration and low concentration ASFV repetitive amplification curve



APPLICABLE INSTRUMENT

Product Name	Sample Throughput	Fluorescence Channels	Certification
Tianlong Portable Real-Time PCR System -Gentier Mini	16	2	CE/FDA

- Portable
- Fast
- Always Online

Gentier Mini is designed for mobile, small laboratories or on-site testing.

ORDERING INFORMATION

Product Name	African Swine Fever Virus (ASFV) Nucleic Acid Detection Kit (Fluorescence PCR Method)	
Cat.No	P260H	P708H
Specification	25T/Kit	50T/Kit
Specimen	Cell free body fluid sample, whole blood, serum, tissue or environmental sample	
Sensitivity	500 copies/mL	
Storage & Validity	-25~-15℃ for 12 months	
Applicable Equipment	Instruments with FAM and VIC channels, such as ABI series, Bio-Rad series, Tianlong PCR instruments	

Classical Swine Fever Virus (CSFV) Nucleic Acid Detection Kit

(Fluorescence PCR Method)

Classical swine fever virus (CSFV) is an enveloped single-stranded, positive-sense RNA virus that belongs to the Pestivirus genus of the Flaviviridae family. CSFV causes classical swine fever (CSF), which is characterized by high fever, leukopenia, extensive haemorrhage, convulsion, and constipation or diarrhoea and presents high morbidity and mortality.

It is an infectious disease that poses a serious threat to the pig industry. Therefore, rapid and accurate diagnosis of CSFV is very important. Tianlong Classical Swine Fever Virus (CSFV) RNA Detection Kit can assist in the diagnosis of CSF and help public healthcare management.

FEATURES

Confidence in results
Reliable detection of Classical Swine Fever Virus (CSFV), covering CSFV genotype Ⅰ、Ⅱ、Ⅲ

Various Specimen
Compatible with multiple sample types, including cell free body fluid sample, whole blood, serum or tissue sample

Real-time RT-PCR based CSFV detection
Provides a rapid test solution that detects CSFV with a high degree of sensitivity and specificity

User-friendly
Widely applicable in instruments with FAM and VIC channels

Providing Integrated Solution
Highly efficient and reliable, Tianlong integrated PCR lab solution from devices to reagents can ensure great compatibility and minimized errors

DATA INTERPRETATION

Figure 1: Gradient concentration CSFV amplification curve

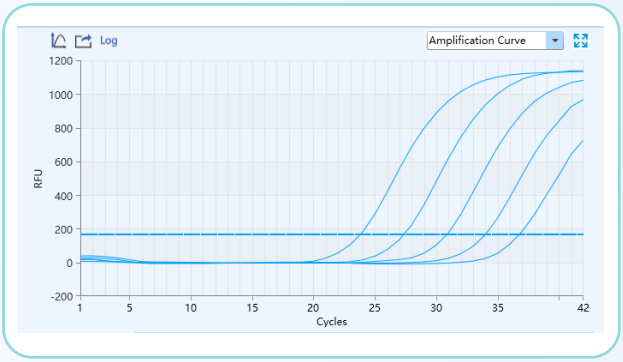
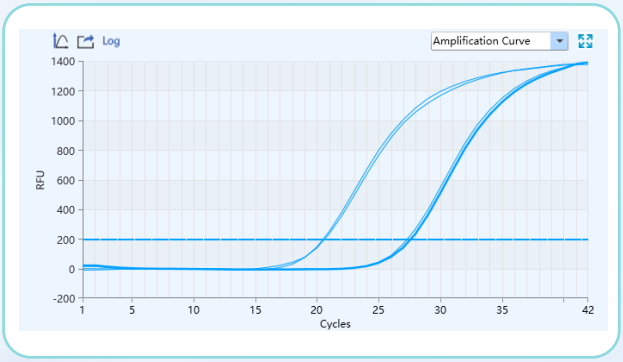


Figure 2: High concentration and low concentration CSFV repetitive amplification curve



ORDERING INFORMATION

Product Name	Classical Swine Fever Virus (CSFV) Nucleic Acid Detection Kit (Fluorescence PCR Method)
Cat.No	P674H
Specification	50T/Kit
Specimen	Cell free body fluid sample, whole blood, serum or tissue sample
Sensitivity	500 copies/mL
Storage & Validity	-25~-15℃ for 12 months
Precision	<5%
Applicable Equipment	Instruments with FAM and VIC channels, Applied Biosystems™ 7500 Real-Time PCR Systems, Tianlong Gentier Real-time PCR systems

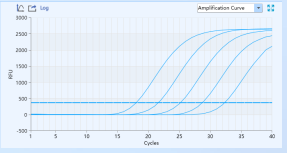
ASSAY WORKFLOW

1 Sample Collection

2 Nucleic Acid Extraction

3 PCR Detection

4 Analysis and Report



Porcine Epidemic Diarrhea Virus (PEDV) Nucleic Acid Detection Kit

(Fluorescence PCR Method)

Porcine epidemic diarrhea virusis (PEDV) an important enteric virus leading to tremendous economic losses to the global swine industry. PEDV infects pigs of all ages, but most severely neonatal piglets, reaching morbidity and mortality of up to 100% with mortality decreasing as age increases. The clinical signs of the infected pigs are vomiting, acute watery diarrhea, and dehydration. PEDV has spread across many countries, resulting in heavy economic losses to the porcine industry. Therefore, rapid and accurate diagnosis of PEDV is very important.

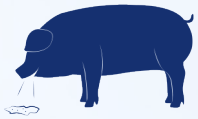
Tianlong Porcine Epidemic Diarrhea Virus (PEDV) Nucleic Acid Detection Kit is intended to be used for the qualitative detection of PEDV nucleic acid by fluorescence Polymerase Chain Reaction (PCR) method and can assist in the diagnosis of PEDV and public healthcare management.

CLASSIFICATION

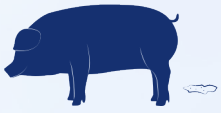
PEDV Genotype G1
Classic strain

PEDV Genotype G2
Variant strain

SIGNS OR SYMPTOMS



Vomiting



Acute watery diarrhea

Dehydration and weight loss

FEATURES

Reliable Detection
Qualitative detection of PEDV nucleic acid by fluorescence Polymerase Chain Reaction (PCR) method with a high degree of sensitivity and specificity

Various Specimen
Small intestinal empty intestine sample, intestinal content, stool, anal swab, environmental sample

Endogenous Internal Control
The use of internal control system in the kit can effectively prevent false negative results

High Precision
The precision values of intra and inter Ct values were all < 5%

Providing Integrated Solution
Highly efficient and reliable, Tianlong integrated PCR lab solution from devices to reagents can ensure great compatibility and minimized errors

DATA INTERPRETATION

Figure 1: Gradient concentration PEDV amplification curve

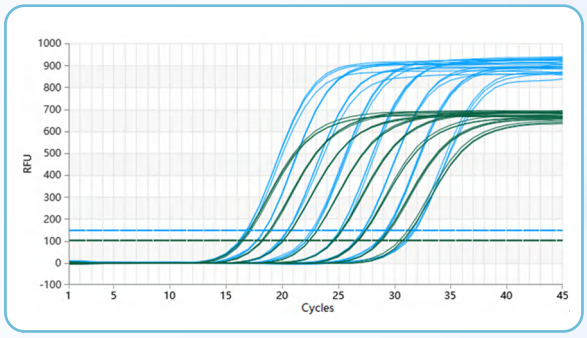
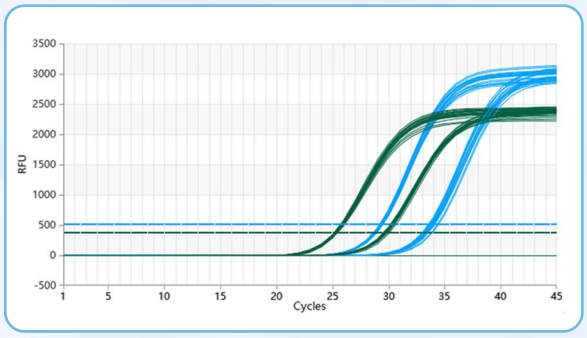


Figure 2: High concentration and low concentration PEDV repetitive amplification curve

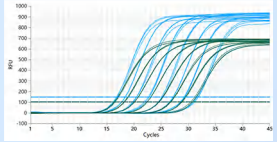


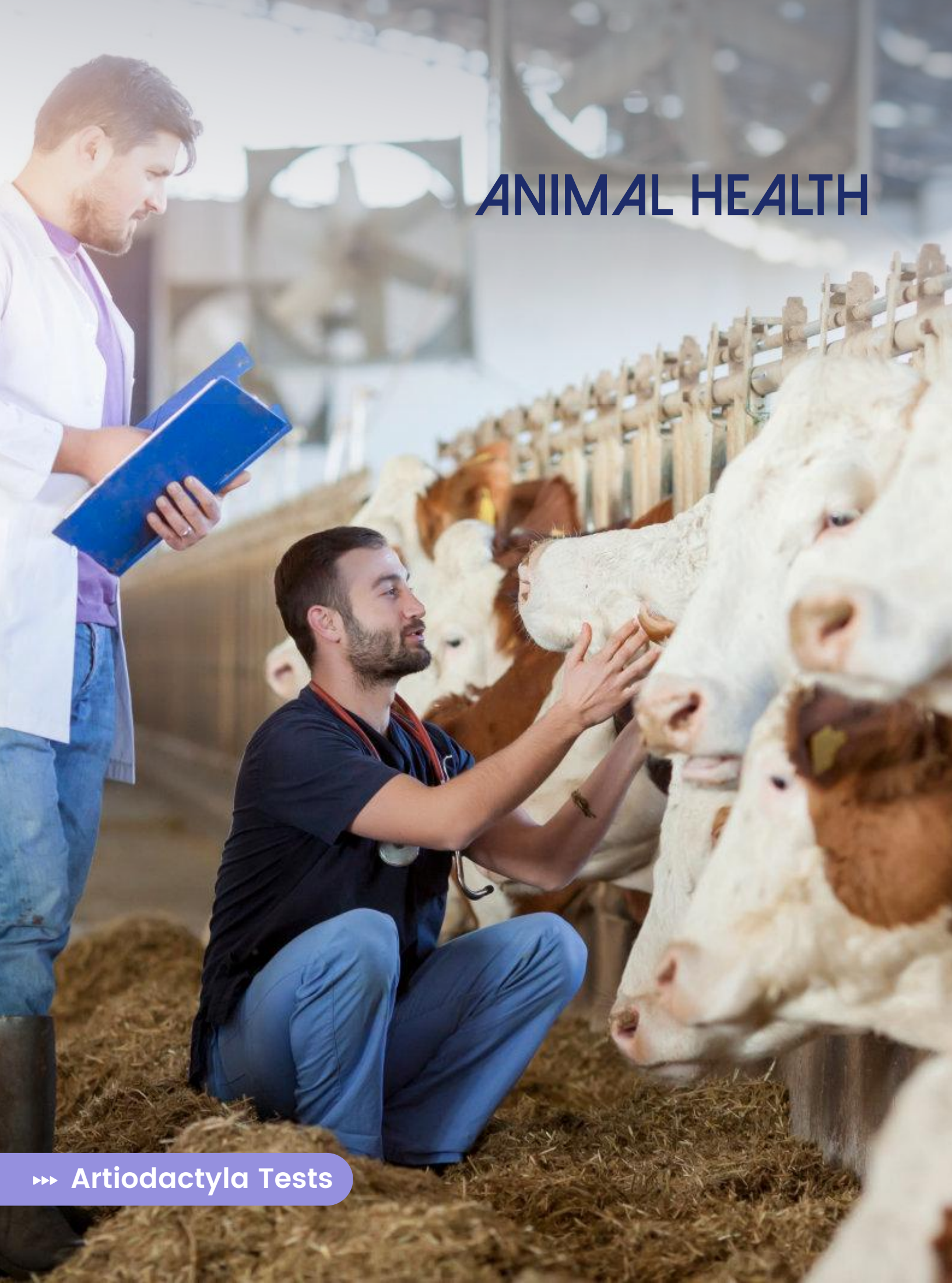
ORDERING INFORMATION

Product Name	Porcine Epidemic Diarrhea Virus(PEDV)Nucleic Acid Detection Kit (Fluorescence PCR Method)
Cat.No	P705H
Specification	50T/Kit
Specimen	Small intestinal empty intestine sample, intestinal content, stool, anal swab, environmental sample
Sensitivity	1000 copies/mL
Precision	<5%
Storage & Validity	-25~-15°C for 12 months
Applicable Equipment	Instruments with FAM and VIC channels, such as Tianlong Gentier Real-time PCR system, Roche cobas z480, Applied Biosystems™ QuantStudio™ 5 Real-Time PCR System and Applied Biosystems™ 7500 Real-Time PCR Systems

ASSAY WORKFLOW

1 Sample Collection → **2** Nucleic Acid Extraction → **3** PCR Detection → **4** Analysis and Report





ANIMAL HEALTH

Artiodactyla Tests

Foot and Mouth Disease Virus (FMDV) Nucleic Acid Detection Kit

(Fluorescence PCR Method)

Foot and mouth disease (FMD) is a severe, highly contagious viral disease that affects cattle, swine, sheep, goats, and other cloven-hoofed ruminants. FMD is characterized by fever and blister-like sores on the tongue and lips, in the mouth, on the teats, and between the hooves.

The organism which causes FMD is an aphthovirus of the family Picornaviridae. There are seven strains (A, O, C, SAT1, SAT2, SAT3, and Asia1) that are endemic in different countries worldwide. Infection with any one serotype does not confer immunity against other serotypes.

Tianlong's Foot and Mouth Disease Virus(FMDV) RNA Detection Kit is used for the qualitative detection of FMDV RNA by the Real-time RT-PCR method, which can help in the fast diagnosis of FMD.

FEATURES

Various Serotypes Detection
Concurrently detects four common FMDV serotypes A, O, C, and Asia1, assisting in the fast diagnosis of FMD

Various Specimen
Serum, vesicular, pustular lesion fluid, diseased tissue samples and throat swab

Internal Control
The use of internal control system in the kit can effectively prevent false-negative results

User-friendly
Widely applicable in instruments with FAM, VIC channels

High Precision
The precision values of intra and inter Ct values were all <5%

DATA INTERPRETATION

Figure 1: Gradient concentration FMDV amplification curve

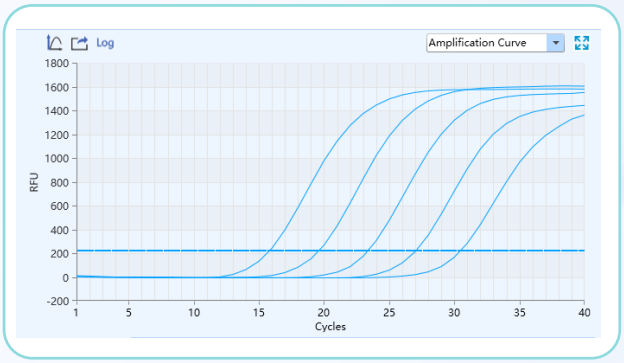
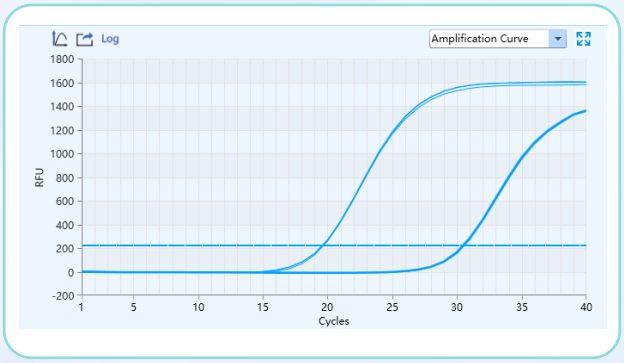


Figure 2: High concentration and low concentration FMD repetitive amplification curve



ORDERING INFORMATION

Product Name	Foot and Mouth Disease Virus (FMDV) Nucleic Acid Detection Kit (Fluorescence PCR Method)
Cat.No	P725H
Specification	50T/Kit
Species	Artiodactyla (Cattle, Swine etc.)
Specimen	Serum, vesicular, pustular lesion fluid, diseased tissue samples and throat swab
Sensitivity	500 copies/mL
Precision	<5%
Storage & Validity	-25~-15℃ for 12 months
Applicable Equipment	Instruments with FAM, VIC channels, such as Applied Biosystems™ 7500 Real-Time PCR Systems, TianLong Gentier Real-time PCR systems, etc

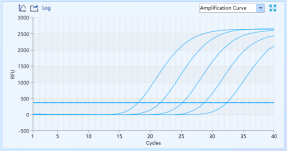
ASSAY WORKFLOW

1 Sample Collection

2 Nucleic Acid Extraction

3 PCR Detection

4 Analysis and Report



ANIMAL HEALTH

Poultry Tests

Newcastle Disease Virus Nucleic Acid Detection Kit

(Fluorescence PCR Method)

Newcastle disease is a highly contagious and sometimes fatal illness affecting poultry. It is caused by virulent strains of avian paramyxovirus type 1.

The disease often appears in three forms: lentogenic, mesogenic, and velogenic. The severity of the disease is a function of the virulence of the infecting viral strain. When the virus is introduced into a susceptible flock, virtually all the birds will be infected within two to six days. ND can present a clinical picture similar to avian influenza, so laboratory testing is important to confirm the diagnosis.

SIGNS OR SYMPTOMS

Respiratory signs

gasping, coughing, sneezing and rales

Nervous signs

tremors, paralyzed wings and legs, twisted necks, circling, spasms, and paralysis

Digestive signs

diarrhoea

Reproductive signs

drop in egg production, watery albumen, egg abnormal in color, shape, or surface

FEATURES

Confidence in results

Screening flocks for presence or absence of Newcastle Disease Virus (NDV), detects all NDV strains

Various Specimen

Compatible with multiple sample types, including poultry serum, tissues, organs, excretory secretions, and swabs of cloaca and throat

Real-time RT-PCR based NDV detection

Provides a rapid test solution that detects NDV with a high degree of sensitivity and specificity

User-friendly

Widely applicable in instruments with FAM and VIC channels

Providing Integrated Solution

Highly efficient and reliable, Tianlong integrated PCR lab solution from devices to reagents can ensure great compatibility and minimized errors

DATA INTERPRETATION

Figure 1: Gradient concentration NDV amplification curve

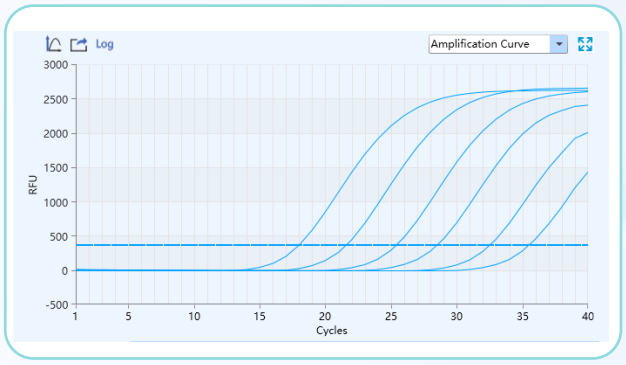
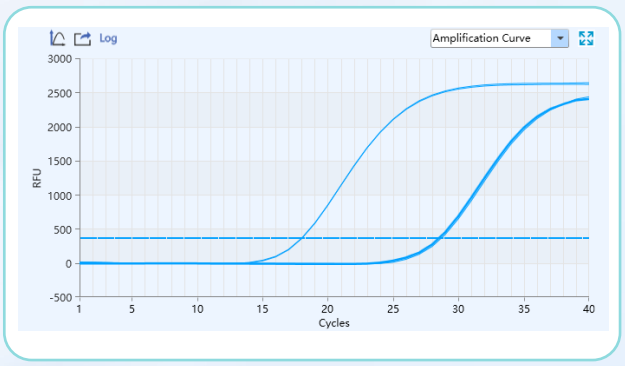


Figure 2: High concentration and low concentration NDV repetitive amplification curve



ORDERING INFORMATION

Product Name	Newcastle Disease Virus Nucleic Acid Detection Kit (Fluorescence PCR Method)
Cat.No	P695H
Specification	50T/Kit
Specimen	Poultry serum, tissues, organs, excretory secretions, and swabs of cloaca and throat
Sensitivity	500 copies/mL
Precision	<5%
Storage & Validity	-25~-15℃ for 12 months
Applicable Equipment	Instruments with FAM and VIC channels, such as Tianlong Gentier Real-time PCR systems, Applied Biosystems™ 7500 Real-time PCR Systems

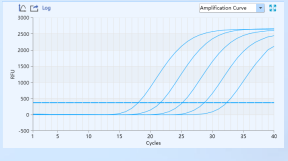
ASSAY WORKFLOW

1 Sample Collection

2 Nucleic Acid Extraction

3 PCR Detection

4 Analysis and Report



Feline Upper Respiratory Disease (FURD) Real-time PCR Panel

(Fluorescentce PCR Method)

Common respiratory diseases in pets are mostly caused by pathogen infection, and the clinical symptoms after the onset are more similar, especially the clinical symptoms in the early stage are mild. But if not taking effective treatment in time, the disease can progress rapidly, resulting in serious consequences.

Tianlong Feline Upper Respiratory Disease (FURD) Real-time PCR Panel is suitable for in vitro qualitative detection of nucleic acids of Feline Herpesvirus-1(FHV-1), Feline Calicivirus(FCV), Mycoplasma felis(MF), Felidae chlamydiae(CF), Bordetella bronchiseptica(Bb) in cat oral nasopharyngeal swab samples. It aims to quickly and accurately detect common feline respiratory pathogens, assisting in the diagnosis of feline respiratory infections and public medical management.

FEATURES

5 in 1

Simplify Laboratory Workflow

Differential diagnostics of the five feline upper respiratory pathogens in a single run, 5 in 1 test for Feline Herpesvirus-1(FHV-1), Feline Calicivirus(FCV), Mycoplasma felis(MF), Felidae chlamydiae(CF), Bordetella bronchiseptica(Bb), fast detection within 40 minutes for report

Internal Control

The use of internal control system in the kit can effectively prevent false negative results

User-friendly

Widely applicable in instruments with FAM, HEX channels

High Precision

The precision values of intra and inter Ct values were all≤3%

More accurate

Collocating with Tianlong extraction reagent makes your experiment results more accurate

DATA INTERPRETATION

Figure 1: Tianlong Feline Upper Respiratory Disease (FURD)Real-time PCR Panel gradient amplification curve

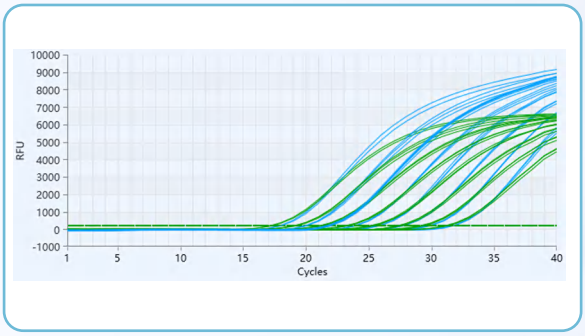
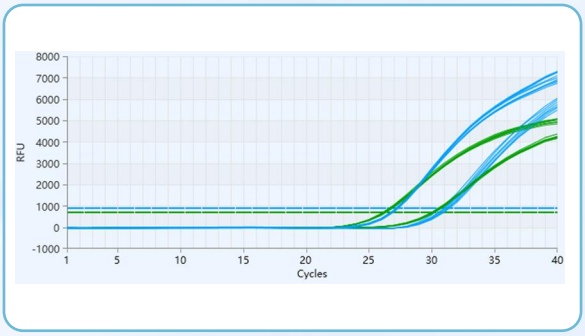


Figure 2: High concentration and low concentration repetitive amplification curve



APPLICABLE INSTRUMENT

	Product Name		Sample Throughput	Certification
Nucleic Acid Extractor		Tianlong GeneFlex 16	16	CE/FDA
Real-Time PCR System		Tianlong Gentier mini Series	16	CE/FDA

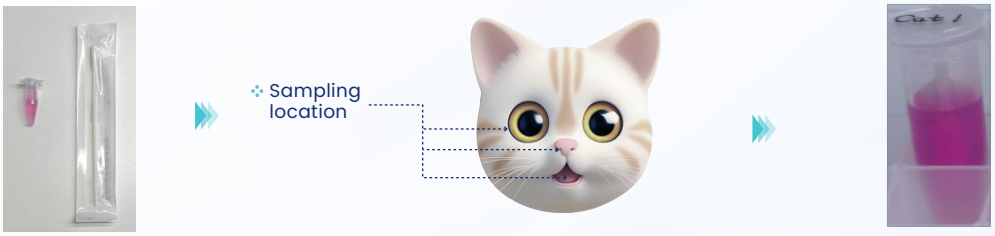
ORDERING INFORMATION

Product Name	Feline Upper Respiratory Disease (FURD) Real-time PCR Panel (Fluorescence PCR Method)
Cat.No	P360H
Specification	8T/Kit
Sensitivity	700 copies/mL
Target Pathogen	Feline Herpesvirus-1(FHV-1), Feline Calicivirus(FCV), Mycoplasma felis(MF), Felidae chlamydiae(CF), Bordetella bronchiseptica(Bb)
Specimen	Oral nasopharyngeal swab sample
Storage & Validity	-25℃~-15℃ for 6 months

ASSAY WORKFLOW

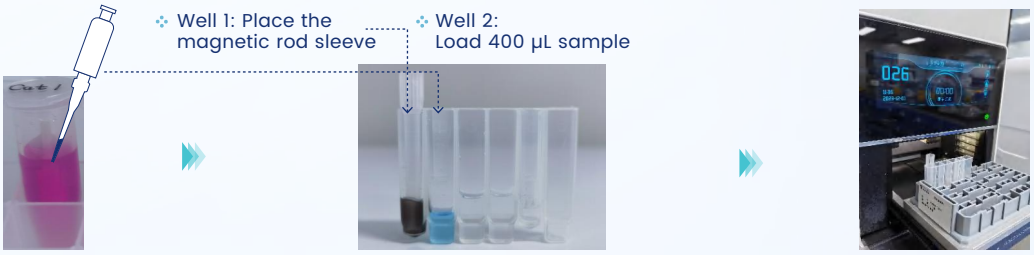
1 Sample Collection

1. Open the Tianlong nucleic acid extraction kit for pet diagnosis and take out the sampling collection set. Sample the secretions from the mouth, nose and eyelid of the infected pet (wet swab sampling);
2. Label the sample tubes after collection and mix the sample upside down for 5 times. Put the sample tubes on the sample rack for use later.



2 Nucleic Acid Extraction

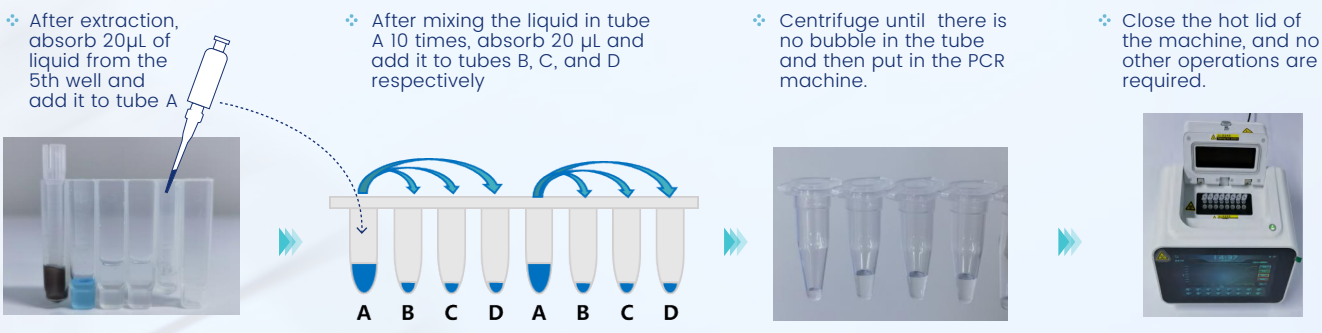
1. Open the Tianlong nucleic acid extraction kit for pet diagnosis and take out the nucleic acid extraction reagent strip. Tear off the packaging bag and put the reagent strip on the specialized base;
2. Gently tear off the aluminum foil sealing film (avoid vibration to prevent liquid splash). Absorb 400μL of the liquid in the sample tube (step 1), add it into the second hole of the reagent strip, and put the magnetic sleeve in the first hole;
3. Take out the attached program sticker in the kit and paste it to the left of the base. Then put the base with reagent strip and filled samples in the extraction machine. Click the Run button to start extraction.



***1000 μL pipette and pipette tips are needed for this step**

3 PCR Detection

1. Open the Tianlong Feline Upper Respiratory Disease (FURD) Real-time PCR Panel and take out the detection reagent according to the number of samples. Melt the reagents at room temperature;
2. After nucleic acid extraction, absorb 20μL of the liquid from the fifth hole of the extraction reagent strip(step 2), and add it into detection reagent tube A. Mix the reagent for 10 times;
3. Add 20μL of liquid from tube A to tubes B, C, and D respectively, and close the tube cap. Gently mix the liquid of tubes B, C, and D and centrifuge for 5 seconds. Wait until no bubbles in the tubes, and put it into the PCR machine.



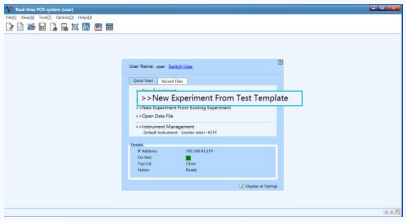
***20 μL pipette and pipette tips are needed for this step**

4 Analysis and Report

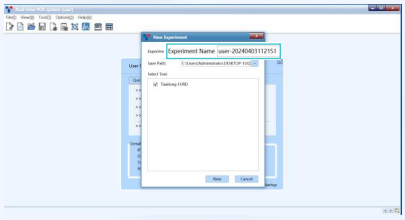
1 Open the Tianlong PCR analysis software on the computer, click "File" > "Set new experiment based on Template" > Select the experiment protocol and set the name of the experiment > Set the samples in the PCR machine according to the number of samples and the position of PCR tubes> Run the experiment;

2 After the experiment, the software will automatically analyze and report negative and positive results. If the internal control is normal, then the experiment result is valid.

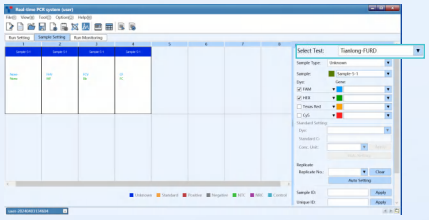
3 Click the report management system, complete the report information, and then you can choose to print the report.



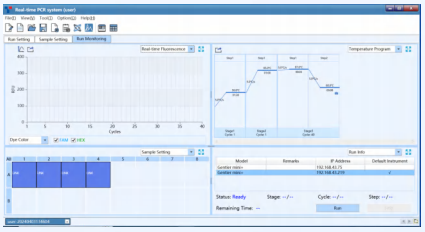
Set new experiment: open the Tianlong PCR analysis software, run a new experiment from existing templates



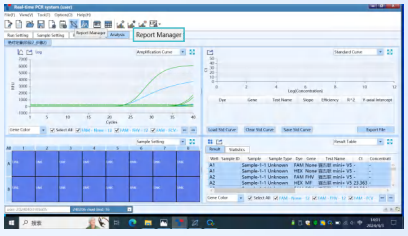
Select protocol: select the protocol of Tianlong FURD detection and rename the run



Sample setting: set the samples in the instrument in accordance with the number of samples and the position of PCR tubes. Select the well and choose the experiment protocol

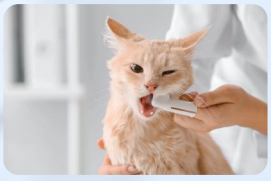


Start detection: start running the experiment and monitoring the detection process



Report export: after the experiment, click report management in the analysis interface, input the sample information, and print the report

APPLICATION AREA

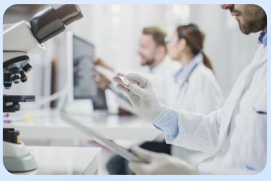


Vet Clinic

Animal Hospital

Pet Lab

Animal CDC



Research Institute

ANIMAL SPECIES IDENTIFICATION

- Porcine ID
- Bovine ID
- Ovine ID
- Horse ID
- Donkey ID
- Chicken ID
- Duck ID
- Goose ID
- Canine ID
- Feline ID
- Murine ID
- Cervine ID
- Vulpine ID

Animal Species Identification Kits

Animal species identification in food and feed products has increasingly acquired importance due to public health, economic and legal concerns. Even religious and ethical criteria can be at risk in the case of food adulteration.

Unknowingly ingesting an allergenic animal product can be a serious health danger. Additionally, the unknown presence of any animal ingredients in vegetarian food may cause individuals to unknowingly violate their belief system. And the substitution of an inferior animal species in a food product often referred to as “food fraud,” has both economic and legal ramifications.

Tianlong Animal Species DNA Detection Kits offer a broad portfolio of real-time PCR-based animal species detection solutions. The range includes assay kits for pig, cow, equine, sheep, donkey, chicken, duck, goose, dog, cat, mouse, deer, and fox DNA in food samples and animal tissues. The assays provide very high sensitivity with a limit of detection (LOD) of 500 copies/mL.

Animal Species	Sheep	Equine	Cow	Donkey	Pig	Deer	Fox
Detected	✓	✓	✓	✓	✓	✓	✓

Animal Species	Dog	Cat	Goose	Duck	Chicken	Mouse
Detected	✓	✓	✓	✓	✓	✓

FEATURES

Wide Coverage
Qualitative detection of animal DNA by Real-time PCR method, providing broad portfolio of animal species detection solutions

Various Specimen
Food containing animal components, animal tissue or blood, animal feed, meat products, etc.

Real-time PCR based animal DNA detection
Provides a rapid test solution that detects animal DNA with a high degree of sensitivity and specificity

Good Compatibility
Widely applicable in instruments with FAM and CY5 channels

Providing Integrated Solution
Highly efficient and reliable, Tianlong integrated PCR lab solution from devices to reagents can ensure great compatibility and minimized errors

ORDERING INFORMATION

Product Name	Specification	Cat.No
Porcine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P591H
Bovine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P592H
Ovine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P593H
Horse Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P594H
Donkey Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P595H
Chicken Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P596H
Duck Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P597H
Goose Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P598H
Canine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P599H
Feline Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P600H
Murine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P601H
Cervine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P602H
Vulpine Ingredients Nucleic Acid Detection Kit (Fluorescence PCR Method)	50T/Kit	P603H

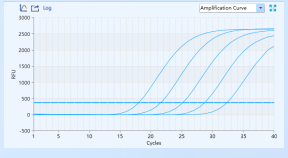
ASSAY WORKFLOW

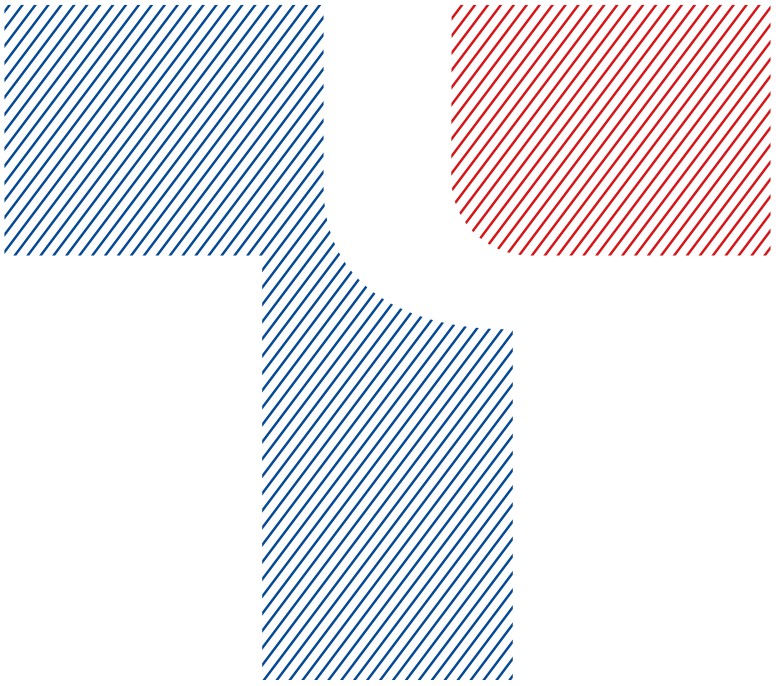
1 Sample Collection

2 Nucleic Acid Extraction

3 PCR Detection

4 Analysis and Report





Bring Technology to Life

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