



hermes  
biotech

# HermesReady S-1 canal

Pets Automatic Integrated Gene Detection System



One hour report



Preset kit: all in one



No need for PCR laboratory

# 01 Principle

- The main pathogens that cause common infectious diseases in pets are viruses, bacteria, mycoplasma and chlamydia, and parasites, which seriously endanger the health of pets.
- The cartridge of the PetReady detection system combines microfluidics, nano-superparamagnetic beads nucleic acid extraction, fluorescence real-time PCR, enzyme and reagent critical state preservation technologies, which is pre-installed with the extraction and amplification reagents, so to realize the fully-closed automatic output from the sample to the gene detection result. It avoids the shortcomings of the conventional molecular detection with false positive results, although with high sensitivity.

# 02 Workflow

- Easy manual operation in 2 minutes
- Sample types: swab, body fluid, etc.



1st Step: Add sample, such as whole blood, sputum, puncture fluid, other samples after homogenizing. Add magnetic beads from the kit.



2nd Step: scan the cartridge to load the preset protocol directly with the sample information, run.



3rd Step: Automatically get the report.

# 03 Automatic results



Project FCV, IC, FHV, FHV  
 Ct ∞, 17, 47, ∞, ∞  
 Result Neg, Neg, Neg

Negative result



Project FCV, IC, FHV, FHV  
 Ct 21, 97, 17, 22, 20, 41, ∞  
 Result Pos ++, Pos ++, Neg

Positive result

# 04 Professional report

**MOLECULAR REPORT**

*** Per hospital Address: Service phone:	
NAME: [REDACTED]	SEX: [REDACTED]
AGE: [REDACTED]	DATE: [REDACTED]
NO.: [REDACTED]	Specimen: [REDACTED]

**CLINICAL INFORMATION**

2.1. Customer's clinical information: [REDACTED]

**TEST RESULTS**

FCV: [REDACTED]

IC: [REDACTED]

FHV: [REDACTED]

FHV: [REDACTED]

**CONCLUSION**

The result is [REDACTED]

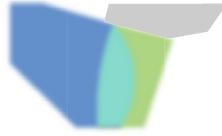
Dr. Lin

## 05 Advantages



### Fully-closed Microfluidic Kit, No Contamination

PetReady cartridge with the unique design can control reagents flow in one direction. Owing to the microfluidic valves and sealed separate units, it avoids the contamination. So the system can be placed under the ordinary lab environment



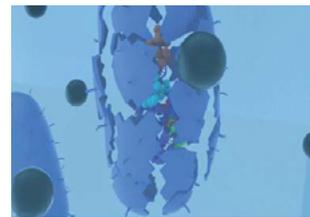
### Real-time Fluorescent PCR Technology, High Sensitivity

It combines the specificity and sensitivity of PCR detection technology, which shortens the window period of disease detection, and all the extracted nucleic acids from the sample enter the reaction system, which greatly improves the sensitivity



### From sample to report as less as in 1 hour

The whole process, including the extraction, purification, amplification and detection of sample, will be done in about one hour, which shortens the period of detection.



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## 06 Compares



### Extraction of microfluidic nano-magnetic beads and real-time fluorescent PCR Detection

**Lysis**

The structure of cells in the sample was broken under the action of heating and reagents, so to release the nucleic acids, which were specifically bound to the nano-magnetic beads.

**Extraction**

Under the action of a controlled changing magnetic field, nucleic acid substances can be purified through the various different reagents of the microfluidic kit.

**Detection**

Under the high-precision semiconductor based temperature control, the polymerase chain reaction is carried out. And the nucleic acids are amplified to hundreds of millions of times, finally detected by the low-light photomultiplier tube (PMT) so to get the results.

### Comparison With Test Strip

PetReady system	Test Strip
1-10 viruses can be detected in principle	The estimated volume of tested virus is $10^6$
No window period basically	The window period is 1-2 weeks
Accuracy > 98%	Accuracy 60%-70%
Judge the degree of illness according to the Ct value detected by system	Judge the degree of illness according to the experience or roughly automatically

### Comparison With Other Molecular Diagnostics

	PetReady system	One-step RT-PCR	Portable isothermal amplification method	Extraction + Amplification (Automatic)
Anti-contamination	No contamination	Contaminated Easily	Contaminated Easily	Contaminated Easily
Detection Performance	4 individual channels, detection on-demand	Test one item at one time	Test one item at one time	Test one item at one time
Accuracy	Extremely high	Medium	Low	High
Sensitivity	Extremely high	Medium	Low	High
Sample Pretreatment	No	Yes	Yes	Yes
Detection Time	About 1 hour	About 1.5 hour	About 1 hour	About 1.5 hour

## A Order information and performance parameters

### AIGS

Model/Order No.	HermesReady S-1 canal (PetReadyS)
Light source	LED
Detector	PMT photomultiplier tube
Max heating & cooling rate of block	$\geq 4^{\circ}\text{C/s}$
Block temperature range	40°C - 99.9°C
Block temperature accuracy	$\leq 0.3^{\circ}\text{C}$
Temperature display accuracy	0.1 °C
Sample linearity	[r] $\geq 0.98$
Detection Range	10-10 <sup>9</sup> copies/ml
Dyes	F1:FAM, SYBER Green 1 F2: HEX. VIC F3: HEX RED, ROX F4: CYS
Fluorescence detection time	5s
Display	7-inch color touch screen
Power supply	AC 100-240V, 50/60Hz, 120W
Data connector	USB, WiFi, LAN
Size	Length 278mm x Width 190mm x Height 343mm

## Pet's Single Target Detection Kit

Products name	Description	Order No.
Feline Parvovirus (FPV) Detection Kit	DNA	B000SE
Feline Coronavirus (FCoV) Detection Kit	RNA	B0008E
Feline Herpes Virus (FHV) Detection Kit	DNA	B0009E
Feline Calicivirus (FCV) Detection Kit Mycoplasma	RNA	B0010E
Feline (MF) Detection Kit Chlamydia Feline (CF)	DNA	B0011E
Detection Kit	DNA	B0012E
Feline Leukemia Virus (FeLV) Detection Kit	RNA	B0013E

Products name	Description	Order No.
Tox Gondii (Tox) Detection Kit	DNA	B0015E
Leptospira (Lept) Detection Kit	DNA	B0016E
Barton's Disease (Bar) Detection Kit	DNA	B0017E
Mycoplasma Haemophilus (Mha) Detection Kit	DNA	B0018E
Bordetella (BB) Detection Kit	DNA	B0019E
Babesia virus Detection kit	DNA	B0030E

Products name	Description	Order No.
Canine Distemper Virus (CDV) Detection Kit	RNA	B0002E
Canine Parvovirus (CPV) Detection Kit	DNA	B0003E
Canine Coronavirus(CCV) Detection Kit	RNA	B0004E
Canine Herpes Virus (CHV) Detection Kit	DNA	B0016E
Rabies Virus (RV) detection kit	DNA	B0022E
Canine Adenovirus (CAV-1, hepatitis) Detection Kit	DNA	B0023E
Canine Adenovirus (CAV2- , respiratory tract) Detecton Kit	DNA	B0024E
Canine Heartworm (Di) Detection Kit	DNA	B0026E

## Pet's Single Target Detection Kit

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Feline Coronavirus (FCoV) Detection Kit	RNA
Feline Herpes Virus (FHV) Detection Kit	DNA
Feline Calicivirus (FCV) Detection Kit Mycoplasma	RNA
Feline (MF) Detection Kit Chlamydia Feline (CF)	DNA
Detection Kit	DNA
Feline Leukemia Virus (FeLV) Detection Kit	RNA

### Recommended Supporting Products

Products name	Order No.
GeneReady Utimate	BSH-CL2
GeneReady T issue P I Kit	KT01-200

\* Sample type: tissue, feces, other samples that need pre-processing.

Products name	Order No.
GeneReady Utimate	BSH-CL2

\* For shaking and mixing reagents and samples.

Products name	Order No.
Mini centrifuge	Spin Ready 5000

\* Used for sample centrifugation to get the supernatant.

Products name	Order No.
AccuReady M Single Channel 0.5-10µL	M01020
AccuReady M Single Channel 20-200µL	M01060

