

FIA

Fluoreszenz-Immunoassay





best  **AnimalCARE**
Immunofluorescence test card

All the items and calibration curves are written into the two-dimensional code.

- ✓ Plug and Read
- ✓ Chip-free of ID
- ✓ Lot Number Management-free



FLASHTEST F ONE

portable Analyzer

FB0100

- Integrated thermal printer
- Proprietary optical channels for accuracy
- Lithium battery powered for mobility



Model	FB0100
Display	5" touchscreen
Test capacity	1 card (up to 5 parameters)
Ports	USB, bluetooth, WiFi
Dimension	255mm (W) x 95mm (D) x 90mm (H)
Weight	1100g
Technical specs	Stability: $\leq \pm 5\%$ Repeatability: $CV \leq 3\%$ Linearity: $ R \geq 0.990$
Other features	thermal printer, code scanner

FLASHTEST F LITE

Clinical Analyzer

F0100

- Streamlined FIA testing process
- Cost effective quantitative analysis
- Autom recognize parameters and standard curves



Model	F0100
Display	/
Test capacity	1-2 (multiplex single sample cards supported)
Ports	USB, bluetooth
Dimension	213.5mm (W) x 207.5mm (D) x 106.5mm (H)
Weight	1.8 kg
Technical specs	Stability: $\leq \pm 5\%$ Repeatability: $CV \leq 3\%$ Linearity: $ R \geq 0.990$



FIA Detection Kit

Sample

Incubation
time

SKU

Feline

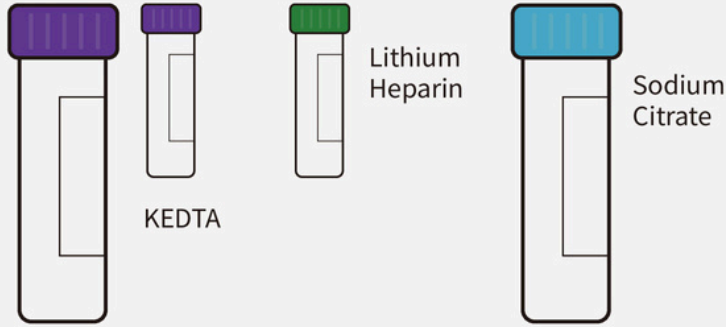
Feline serum amyloid A (fSAA)	10µl Whole blood/ 5µl serum/ 5µl plasma	10 min	2043
Feline pancreatic-specific lipase (fPL)	50µl Serum/ plasma	10 min	2002
Feline N-terminal B-type natriuretic peptide (fNT-proBNP)	50µl Serum/ plasma	10 min	2012
Feline Troponin I (feline cTnI)	100µl Serum/ plasma	10 min	2042
Feline symmetric dimethylarginine (fSDMA)	50µl Serum/ plasma	10 min	2014
Feline Thyroxine (fT4)	100µl Serum/ plasma	10 min	2015
Feline Cortisol (fCOR)	10µl Serum/ plasma	10 min	2039
Feline panleukopenia antigen (FPV Ag)	Fresh feces	10 min	2003
Feline herpesvirus antigen (FHV Ag)	Eye, nose, throat swab	10 min	2004
Feline calicivirus antigen (FCV Ag)	Eye, nose, throat swab	10 min	2005
Feline coronavirus antigen (FCoV Ag)	Fresh feces	10 min	2006
Feline Antibody III (FPV/FHV/FCV Ab)	10µl Serum/ plasma	10 min	2016

Canine

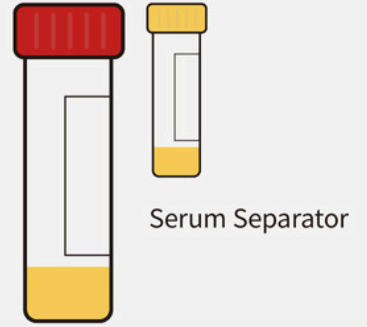
Canine C-reactive protein (cCRP)	10µl Whole blood/ 5µl serum/ 5µl plasma	10 min	2044
Canine pancreatic-specific lipase (cPL)	50µl Serum/ plasma	10 min	2018
Canine N-terminal B-type natriuretic peptide (cNT-proBNP)	50µl Serum/ plasma	10 min	2027
Canine Troponin I Canine Troponin I (Canine cTnI)	100µl Serum/ plasma	10 min	2040
Canine D-Dimer	50µl Sodium citrate plasma	10 min	2041
Canine symmetric dimethylarginine (cSDMA)	50µl Serum/ plasma	10 min	2029
Canine progesterone (cProgesterone)	100µl Serum/ plasma	10 min	2030
Canine cortisol (cCOR)	10µl Serum/ plasma	10 min	2034
Canine Thyroxine (cTT4)	100µl Serum/ plasma	10 min	2032
Canine distemper antigen (CDV Ag)	Eye, nose, throat swab	10 min	2019
Canine parvovirus antigen (CPV Ag)	Fresh feces	10 min	2020
Canine coronavirus antigen (CCoV Ag)	Fresh feces	10 min	2021
Canine adenovirus II Ag (CAV- II Ag)	Eye, nose, throat swab	10 min	2036
Canine Antibody III (CDV/CPV/CAV- I Ab)	10µl Serum/ plasma	10 min	2035

Sample Collection Guide:

Whole Blood



Serum



Plasma



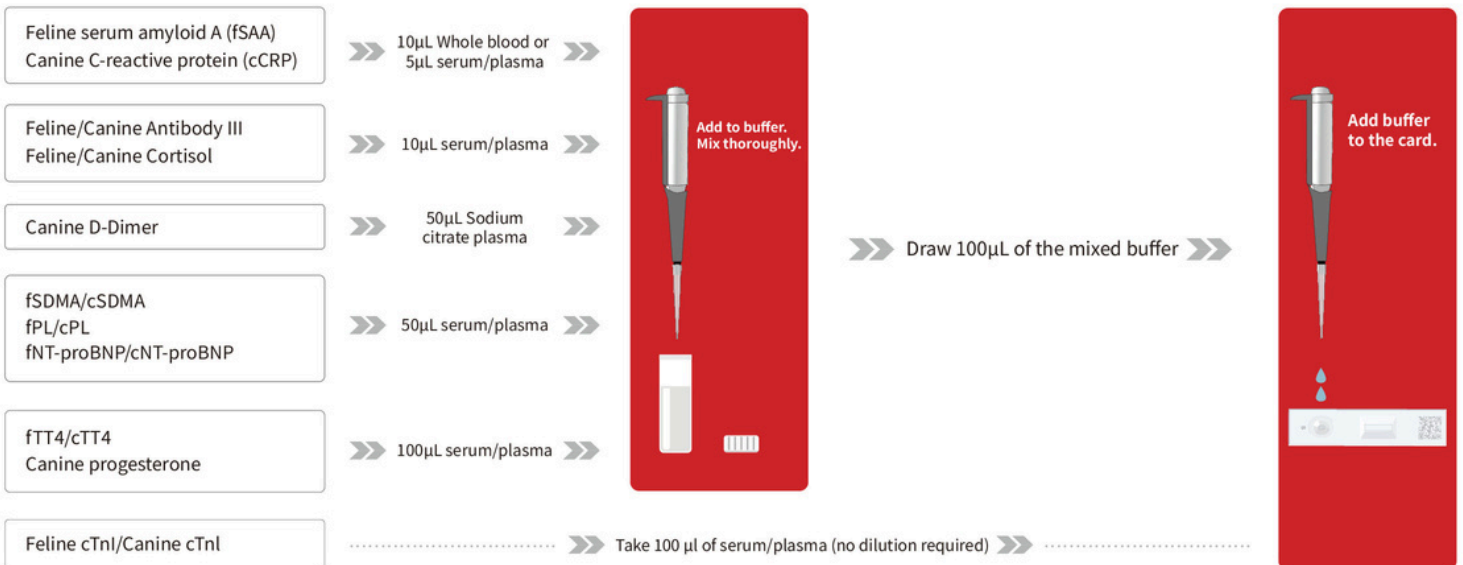
Sample Volume:

Antigen (eye nose throat or feces swab):

- 1) Insert swab into the buffer, mix thoroughly, and sit for 1 minute for solids to settle.
- 2) Add 100 μ L of buffer to the test card.

Blood sample: Follow the instructions below.

(Note: Use the buffer from the original boxes only. Do not use buffers from other boxes.)



Feline



Feline serum amyloid A

fSAA

Feline serum amyloid A (fSAA) is an acute-phase protein synthesized by the liver and is a sensitive marker of inflammation and tissue damage in cats.

Approximately 3-6 hours after viral and bacterial infections, fSAA begins to increase and can reach a peak within 24-48 hours, with an increase in concentration of up to 100 times.

Clinical Application:

Infection-assisted diagnosis and continuous monitoring:

Combined with other indicators, it can timely identify the type of infection, monitor the disease progression, guide and monitor the efficacy of antibiotics, improve the treatment plan, and can be used as a prognostic marker for the disease. Continuous detection of fSAA can monitor the progress of the disease. If its concentration decreases between two consecutive time points, it can indirectly reflect that the treatment is effective.

Postoperative monitoring:

Postoperative infection is a common complication after surgery in animals. fSAA detection is helpful for the early diagnosis of postoperative infection. Changes in fSAA concentration at different time points can be used to detect postoperative infectious complications.

Regular physical examination:

It can be used to detect cats that appear normal on the surface but have latent inflammation. Before other indicators show abnormalities, fSAA can increase rapidly in the early stage of inflammation and tissue damage, and can sensitively indicate abnormalities in the body, providing an important basis for the clinical judgment of early inflammation in the body, which is conducive to early detection and early treatment.

Parameters & Result

species: Cat
sample: 10µl Whole blood/ 5µl serum/ 5µl plasma
storage: 4~30°C
detection range: 2-150mg/L
reference value:

Result Reading (mg/L)	Interpretation
≤2	Normal
2 ~ 10	Mild inflammation
>10	Inflammation

* The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Feline pancreatic-specific lipase

fPL

Feline pancreatic lipase (fPL) is a biomarker used for diagnosing feline pancreatitis. Pancreatitis is a common disease in cats, characterized by inflammation and damage of pancreatic tissue, usually caused by the self-digestion of pancreatic enzymes. The determination of fPL can help diagnose and monitor whether cats have pancreatitis.

Clinical application:

Diagnosis of Pancreatitis:

When cats present relevant symptoms (such as vomiting, loss of appetite, abdominal pain, etc.), the determination of fPL can help confirm whether it is pancreatitis.

Exclusion of Other Diseases:

The symptoms of pancreatitis are similar to those of other digestive system diseases. The determination of fPL can help exclude other potential diagnoses.

Evaluation of Treatment Effect:

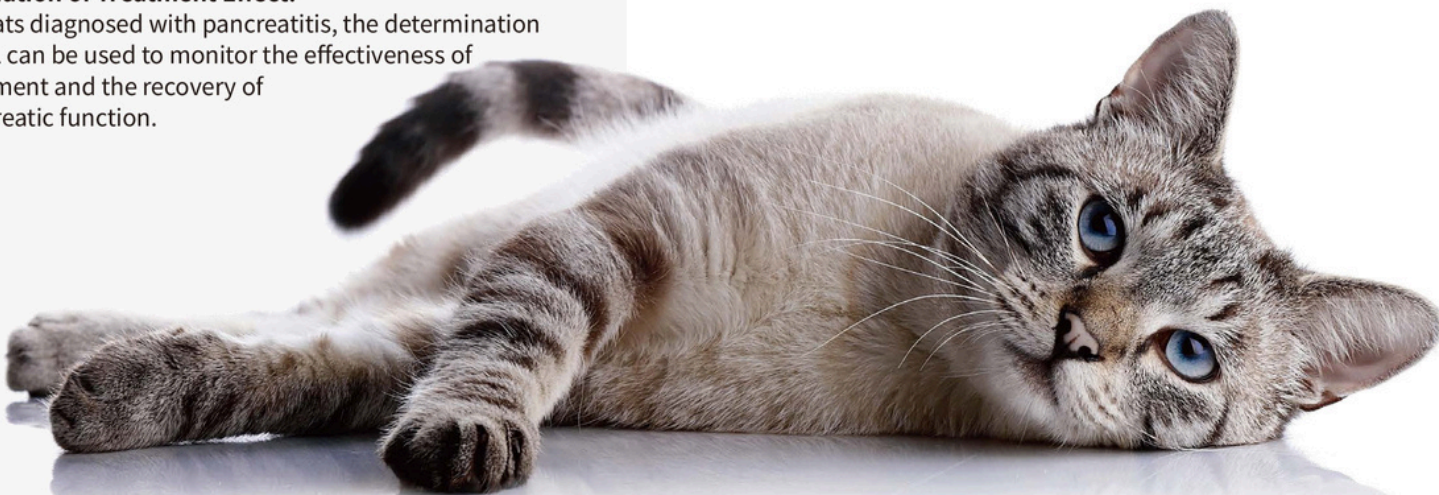
For cats diagnosed with pancreatitis, the determination of fPL can be used to monitor the effectiveness of treatment and the recovery of pancreatic function.

Parameters & Result

species: Cat
sample: 50µl Serum/ plasma
storage: 4~30°C
detection range: 2-50 ng/mL
reference value:

Result Reading (ng/mL)	Interpretation
≤3.6	Normal
3.6~5.4	Susceptible
>5.4	High risk

* The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Feline N-terminal B-type natriuretic peptide

fNT-proBNP

Feline N-terminal B-type natriuretic peptide is a biomarker of significant importance in the assessment of cardiovascular health in cats.

Clinical application:

Diagnosis of heart failure:

It helps determine whether a cat has heart failure and the severity of heart failure.

For example, if a cat shows symptoms such as breathing difficulties and fatigue, and the detection of this indicator is elevated, combined with other clinical symptoms and examinations, heart failure can be diagnosed.

Monitoring treatment effects:

During the treatment of heart failure, its level is regularly detected to evaluate the effectiveness of the treatment plan.

For instance, after a period of drug treatment, if the indicator decreases, it indicates that the treatment has had a positive effect.

Differential diagnosis:

To distinguish other diseases that may cause similar symptoms, such as respiratory system diseases. When a cat has breathing problems and this indicator is normal, it may suggest that the problem is mainly in the respiratory system rather than the heart.

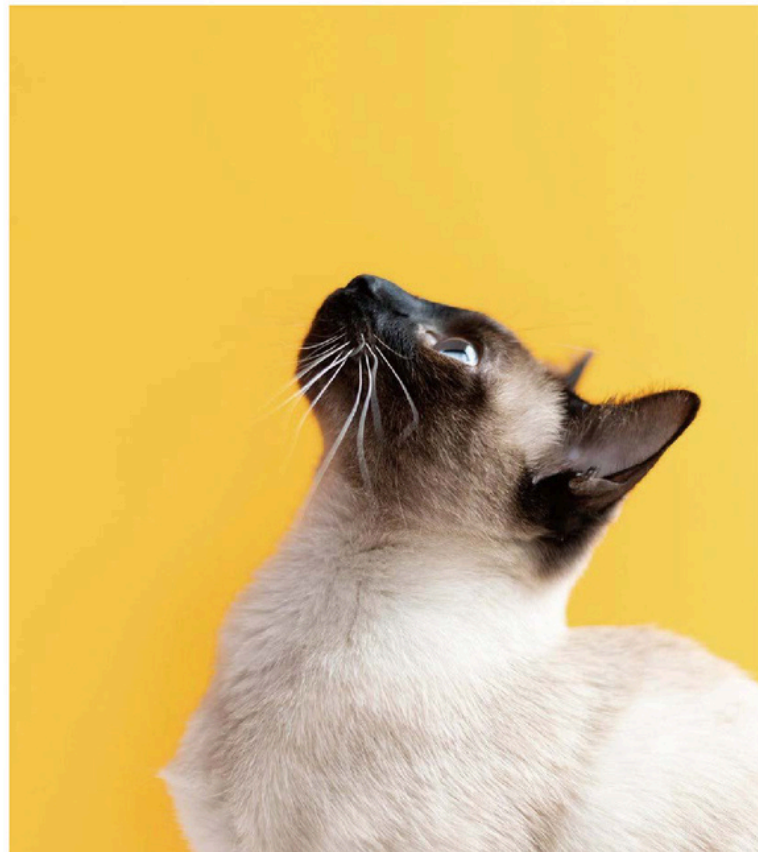
In conclusion, Feline N-terminal B-type natriuretic peptide plays an important auxiliary role in the diagnosis and treatment monitoring of cardiovascular diseases in cats, providing valuable diagnostic basis and treatment guidance for veterinarians.

Parameters & Result

species: Cat
sample: 50µl Serum/ plasma
storage: 4~30°C
detection range: 50-1000pmol/L
reference value:

Result Reading (pmol/L)	Interpretation
≤150	Normal
150 ~ 270	Suspected heart failure
>270	Severe heart failure alert

* The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Feline Troponin I

Feline cTnI

Feline troponin I is a specific biomarker for myocardial injury and is widely used to assess the cardiac health status of cats. Troponin I is an important protein in myocardial cells and participates in the process of muscle contraction. When the myocardium is damaged, cTnI is released into the blood, so an increase in its concentration can indicate myocardial injury.



Clinical application:

Diagnosis of Myocardial Injury:

The determination of cTnI can help diagnose myocardial injury, including conditions such as myocarditis, cardiomyopathy, and myocardial infarction. When cats present relevant symptoms (such as breathing difficulties, weakness, fainting, etc.), an increase in cTnI indicates the presence of myocardial injury.

Monitoring the Progression of Heart Disease:

For cats that have been diagnosed with heart disease, the determination of cTnI can be used to monitor the progression of the disease and assess the severity of the condition. By regularly determining the cTnI level, changes in myocardial injury can be tracked.

Distinguishing Symptoms of Cardiac and Non-cardiac Causes:

When cats present non-specific symptoms (such as loss of appetite, weakness, etc.), the determination of cTnI can help distinguish whether these symptoms are related to heart problems.

Parameters & Result

species: Cat

sample: 100µl Serum/ plasma

storage: 4~30°C

detection range: 0.1-20 ng/ml

reference value:

Result Reading (ng/ml)	Interpretation
≤0.1	Normal
>0.1	Abnormal

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Feline symmetric dimethylarginine

fSDMA

SDMA comes from the intranuclear methylation of L-arginine residues and is released into the cytoplasm after proteolysis. SDMA is excreted by the kidneys and is a by-product of kidney metabolism. The level of SDMA in the blood can indicate the functional level of the kidneys. Generally, kidney function damage can be detected as early as when 25% of kidney function is lost.

Advantage:

✓ **High Sensitivity and Specificity**

The detection of mild renal function impairment by fSDMA has high sensitivity and strong specificity.

✓ **Not Affected by Non-renal Factors**

Compared with traditional indicators (such as creatinine), fSDMA is less affected by non-renal factors such as muscle mass and diet, and is more reliable.

✓ **Early Intervention**

Through early detection and intervention, the progression of kidney disease can be delayed or prevented, and the quality of life and lifespan of cats can be improved.



Clinical application:

Early Nephropathy Screening:

Since fSDMA increases in the early stage of renal function impairment, it is a powerful tool for the early detection of chronic kidney disease. This helps to treat and manage cats before symptoms appear and improve prognosis.

Monitoring the Progression of Nephropathy:

By regularly determining the level of fSDMA, changes in renal function can be monitored, and the disease progression and treatment effect can be evaluated.

Evaluating the Impact of Other Diseases on the Kidneys:

fSDMA can also be used to assess the impact of other systemic diseases (such as heart disease, hypertension, diabetes, etc.) on renal function.

Guiding Treatment:

The fSDMA test results can assist veterinarians in formulating personalized treatment plans, including dietary adjustments, drug therapy, and lifestyle changes.

Parameters & Result

species: Cat

sample: 50µl Serum/ plasma

storage: 4~30°C

detection range: 1-100ug/dL

reference value:

Result Reading (ug/dL)	Interpretation
≤14	Normal
14 ~ 20	Susceptible
>20	High risk

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Feline Total Thyroxine

fTT4

Total thyroxine (fTT4) in cats, full name being total free thyroxine in cats (free thyroxine total), is an important indicator for evaluating the thyroid function of cats. It refers to the total amount of free thyroxine (thyroxine not bound to proteins) in the blood. fTT4 is usually measured through blood tests.



Clinical application:

Diagnosis of Hyperthyroidism:

Hyperthyroidism is one of the common endocrine diseases in cats. An elevated fTT4 level is often an important indicator of hyperthyroidism. For example, when cats show symptoms such as weight loss, increased appetite, restlessness, and rapid heartbeat, testing fTT4 can help determine whether there is a problem of hyperthyroidism.

Postoperative monitoring:

Postoperative infection is a common complication after surgery in animals. fSAA detection is helpful for the early diagnosis of postoperative infection. Changes in fSAA concentration at different time points can be used to detect postoperative infectious complications.

Regular physical examination:

It can be used to detect cats that appear normal on the surface but have latent inflammation. Before other indicators show abnormalities, fSAA can increase rapidly in the early stage of inflammation and tissue damage, and can sensitively indicate abnormalities in the body, providing an important basis for the clinical judgment of early inflammation in the body, which is conducive to early detection and early treatment.

Parameters & Result

species: Cat
sample: 100µl serum/plasma
storage: 4~30°C
detection range: 0.3-12.5ug/dL
reference value:

Result Reading (ug/dL)	Interpretation
≤1.0	Low
1.0~2.0	Normal low
2.0~4.0	Nromal
> 4.0	High

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Feline Cortisol

fCOR

Cortisol is a type of glucocorticoid secreted by the adrenal cortex and plays an important physiological role in cats. It is involved in regulating various physiological processes such as metabolism, immune response, and stress response.

The cortisol level in cats can be influenced by multiple factors, such as circadian rhythm, stress state, and diseases. Under normal circumstances, the cortisol level in cats fluctuates to a certain extent throughout the day, usually being higher in the morning and lower in the evening.

Clinical application:

Diagnosis of Hyperadrenocorticism (Cushing's Syndrome):

When cats present with symptoms such as polydipsia, polyuria, abdominal enlargement, and symmetrical hair loss, testing cortisol levels is helpful for diagnosing Cushing's syndrome. If the cortisol level continuously rises and loses the normal circadian rhythm, it might suggest excessive secretion of cortisol by the adrenal cortex. For example, an obese cat shows symptoms such as thinner skin, susceptibility to infection, and muscle weakness. The detection of fCOR reveals a significantly elevated level. Combined with other examination results, it is diagnosed as Cushing's syndrome.

Diagnosis of Hypoadrenocorticism (Addison's Disease):

Cats with Addison's disease have insufficient cortisol secretion. By detecting the fCOR level being lower than the normal range and combining with clinical symptoms and other related examinations, a diagnosis can be made.

Parameters & Result

species: Cat

sample: 10µl serum/plasma

storage: 4~30°C

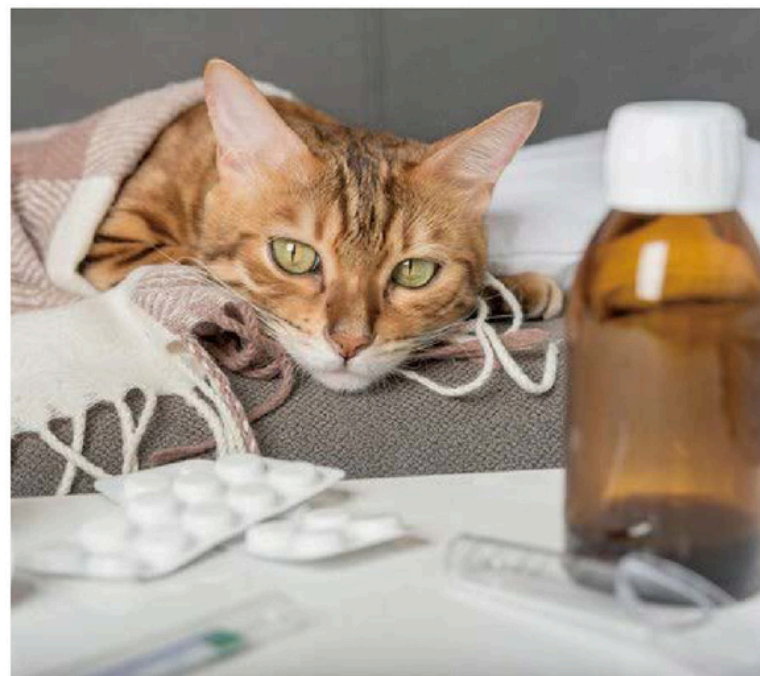
detection range: 1-30ug/dL

reference value:

ACTH (adrenocorticotrophic hormone) stimulation test

Result Reading (ug/dL)	ACTH before use	After using ACTH
≤ 2	If the results before and after ACTH use are < 2ug/dL, it is consistent with adrenal cortex dysfunction	
2 ~ 6	Normal	Suspicious
6 ~ 18		Normal
18 ~ 24		Suspicious
> 24		Consistent with hyperfunction of the adrenal cortex

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Feline panleukopenia antigen

FPV Ag

The feline parvovirus (FPV) is a virus that is highly contagious and pathogenic to cats. The FPV Ag test is carried out by means of specific methods and reagents to detect whether the antigen of feline parvovirus exists in a cat's body.

This detection method is typically based on immunological principles and is capable of quickly and accurately determining whether a cat is infected with feline parvovirus.

Clinical application:

Disease Diagnosis:

When cats present symptoms like vomiting, diarrhea, fever, and listlessness, the FPV Ag test can assist veterinarians in determining whether it is an infection of feline parvovirus. This is of vital importance for early diagnosis and timely treatment.

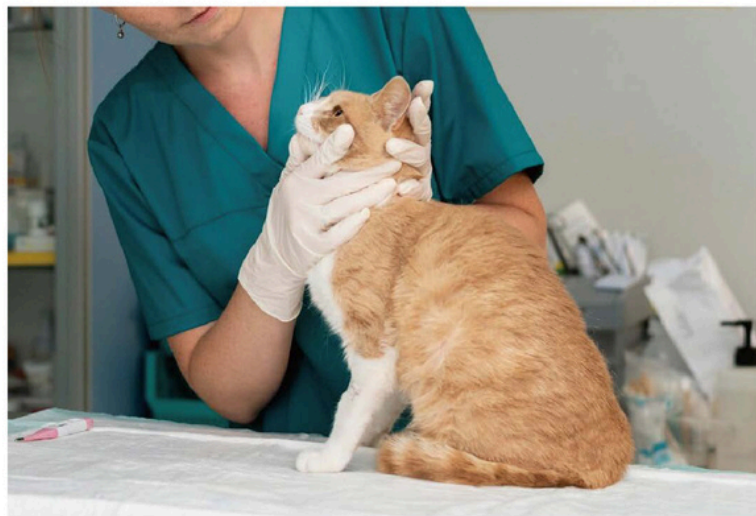
For instance, a young cat suddenly has severe diarrhea and vomiting. If the FPV Ag test is positive after that, it can be diagnosed as feline parvovirus infection.

Vaccine Effect Evaluation:

After vaccination against feline parvovirus, detecting FPV Ag can evaluate whether the vaccine has generated effective immune protection. If the FPV Ag test of a cat is negative after exposure to the virus after vaccination, it indicates that the vaccine has played a good protective role.

Prognosis Judgment:

During the treatment process, conducting the FPV Ag test multiple times can help understand the clearance of the virus, thereby judging the development and prognosis of the disease. If the test results gradually turn negative, it usually means that the condition is improving.



Parameters & Result

species: Cat

sample: Fresh feces

storage: 4~30°C

detection range: 10-80 IU

reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Feline herpesvirus antigen

FHV Ag

The feline herpesvirus is one of the main pathogens causing upper respiratory tract disease (URTD) in cats. This virus is mainly transmitted through respiratory secretions and infects the eyes, nose and throat of cats, resulting in symptoms such as runny nose, sneezing, conjunctivitis, and eye discharge.

Clinical application:

Disease Diagnosis:

The feline herpesvirus can cause viral rhinotracheitis in cats, which is a highly contagious upper respiratory tract infection disease. Clinical symptoms may include fever, depression, anorexia, serous or serosanguineous eye and nasal discharges, conjunctival congestion, sneezing, and occasionally salivation and coughing. The FHV Ag test can help veterinarians quickly determine whether a cat is infected with this virus, especially for cats with the above-related symptoms, which is conducive to early diagnosis and timely treatment.

Monitoring and Prevention and Control:

In multi-cat environments, such as catteries or rescue stations, regular FHV Ag tests are helpful for monitoring the prevalence of the virus, so that corresponding prevention and control measures can be taken, such as isolating infected cats and strengthening environmental disinfection, to prevent the virus from spreading to other healthy cats.

Treatment Evaluation:

During the treatment process, multiple tests can be conducted to understand the clearance of the virus and assist in judging the development of the disease and the treatment effect.

Parameters & Result

species: Cat
sample: Eye, nose, throat swab
storage: 4~30°C
detection range: 10-80 IU
reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Feline calicivirus antigen

FCV Ag

The Feline Calicivirus (FCV) is one of the common pathogens causing upper respiratory tract diseases (URTD) in cats. The Feline Calicivirus antigen test is used to detect whether cats are infected with this virus. FCV infection not only leads to upper respiratory tract symptoms but may also cause oral ulcers, inflammation of the tongue and gums, and lameness in some cases.



Clinical application:

Disease Diagnosis:

When cats show symptoms of acute upper respiratory tract infection, veterinarians can diagnose whether it is caused by feline calicivirus through FCV antigen testing. This helps to take appropriate treatment measures in a timely manner.

Monitoring Viral Load:

During the treatment process, antigen testing can help monitor changes in viral load and evaluate the treatment effect.

Distinguishing Etiology:

For cats with upper respiratory tract infection, antigen testing can help distinguish whether the infection is caused by FCV or by other pathogens (such as feline herpesvirus or mycoplasma).

Evaluating Vaccine Vaccination Effect:

In some cases, antigen testing can be used to evaluate whether cats have an immune response to the FCV vaccine.

Parameters & Result

species: Cat
sample: Eye, nose, throat swab
storage: 4~30°C
detection range: 10-80 IU
reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Feline coronavirus antigen

FCoV Ag

FCoV is an intestinal infectious disease of cats caused by enteric coronavirus. It belongs to the Coronaviridae family and the Coronavirus genus. Dehydration may occur and the fatality rate is relatively low. It mainly causes enteritis in young cats of a low age. It has weak resistance to external physical and chemical factors and can be inactivated by most disinfectants.



Clinical application:

Early diagnosis and intervention:

Through FCoV testing, it is possible to detect whether a cat is infected with the coronavirus at an early stage. This is particularly important for multi-cat households or catteries, because early diagnosis can help control the spread of the virus.

Prevention of the occurrence of FIP:

Although most FCoV infections do not result in FIP, FIP may be triggered under specific circumstances (such as virus mutation). By detecting FCoV, the risk of FIP occurrence in the cat population can be assessed and preventive measures can be taken.

Evaluate the immune status:

FCoV antibody testing can evaluate the immune status of cats and help determine whether cats have been exposed to the virus before, thereby guiding vaccination and immune management strategies.

Scientific research and the development of new therapies:

The FCoV test data is very important for studying the transmission, variation and pathogenic mechanism of the virus, and it helps scientists to develop new diagnostic tools, vaccines and treatment methods.

Parameters & Result

species: Cat

sample: Fresh feces

storage: 4~30°C

detection range: 10-80 IU

reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Feline Antibody III

FPV/FHV/FCV Ab

The three-item test of cat antibodies (FPV/FHV/FCV Ab) refers to the antibody test for three common feline viruses: feline panleukopenia virus (FPV), feline herpesvirus (FHV), and feline calicivirus (FCV). These three viruses are all major pathogenic factors for cats and can cause serious health problems.

Clinical application:

Vaccination management:

Through the FPV/FHV/FCV antibody test, the effect of vaccination can be evaluated to ensure that cats have sufficient immunity to fight against these three common pathogenic viruses.



Not all cats will produce antibodies after receiving the cat triple vaccine! There are many factors that can affect this. For example, kittens obtaining passive immune antibodies from their mother cats can interfere with the onset time of the vaccine, so it may be that the timing is incorrect. Also, vaccines are not needed every year. Excessive vaccination is not a good thing; instead, it can disrupt the antibody mechanism in the body.

Disease prevention:

In a multi-cat environment, conducting these three antibody tests regularly helps monitor the immune status of cats, detect and isolate infected cases in a timely manner, and prevent the spread of the virus.

Health monitoring:

Performing FPV/FHV/FCV antibody tests on newly introduced cats can evaluate their health status and immunity, providing a basis for cat population management.

Parameters & Result

species: Cat
sample: 10µl Serum/ plasma
storage: 4~30°C
detection range: 1.0-8.0 IU
reference value:

Result Reading(IU)	Level	Interpretation
≤ 1.6	S1	Immunodeficiency
1.6 ~ 2.0	S2	Low titer
2.0 ~ 2.5	S3	Medium titer
2.5 ~ 5.6	S4	High titer
5.6 ~ 8.0	S5	High titer
> 8.0	S6	High titer

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Canine



Canine C-reactive protein

cCRP

Canine C-reactive protein (cCRP) is an acute-phase protein produced in dogs. It is mainly synthesized and secreted by the liver, and its concentration in the blood will rapidly increase when the body is stimulated by infections, inflammations, traumas, etc.

Clinical application:

Diagnosis of Infectious Diseases:

Bacterial infections: Such as pneumonia, sepsis, etc., the cCRP level usually increases significantly.

Viral infections: Some viral infections may also cause a mild increase in cCRP, but the amplitude is generally smaller than that of bacterial infections.

For example, if a dog shows symptoms such as coughing and fever, and the cCRP level is significantly increased, combined with other clinical symptoms and examinations, it is helpful for the diagnosis of bacterial pneumonia.

Monitoring of Inflammatory Diseases:

Arthritis: Can be used to assess the control of inflammation and therapeutic effect.

Enteritis: Determine the severity of intestinal inflammation and treatment response.

Taking canine arthritis as an example, regularly detecting cCRP during the treatment process. If its level gradually decreases, it indicates that the treatment is effective and the inflammation is under control.

Evaluation after Surgery and Trauma:

After surgery: Monitor whether postoperative infections or inflammatory complications occur.

Trauma: Understand the recovery situation after trauma.

Parameters & Result

species: Dog

sample: 10µl Whole blood/ 5µl serum/ 5µl plasma

storage: 4~30°C

detection range: 5-200mg/L

reference value:

Result Reading (mg/L)	Interpretation
≤ 10	Normal
10 ~ 20	Slightly high
20 ~ 50	Mild inflammation
> 50	Inflammation

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Canine pancreatic-specific lipase

cPL

Canine pancreatic-specific lipase (cPL) is an enzyme secreted by the acinar cells of the canine pancreas. Under normal circumstances, its content in the blood is extremely low. However, when the pancreas undergoes pathological changes, especially in pancreatitis, pancreatic cells are damaged, and cPL is released into the blood in large quantities, resulting in a significant increase in the concentration of cPL in the blood.

Clinical application:

Diagnosis of Pancreatitis:

Acute pancreatitis: The increase in cPL level is one of the important indicators for diagnosing acute pancreatitis. When a dog shows symptoms such as vomiting, abdominal pain, and listlessness, combined with a significantly increased cPL test result, acute pancreatitis can be highly suspected.

Chronic pancreatitis: For the diagnosis of chronic pancreatitis, cPL detection also has a certain auxiliary role. For example, if a dog suddenly vomits frequently, has tense abdomen, and the blood cPL test result is far beyond the normal range, combined with clinical symptoms and other examinations, it can be diagnosed as acute pancreatitis.

Differential Diagnosis:

Distinguish from other digestive system diseases: When a dog shows digestive system symptoms, cPL detection helps to differentiate and diagnose pancreatitis from other gastrointestinal diseases such as gastritis and enteritis. For example, if a dog has both vomiting and diarrhea, and the detected cPL level is normal, pancreatitis can be preliminarily excluded, and the diagnostic focus can be shifted to other gastrointestinal diseases.



Parameters & Result

species: Dog
sample: 50µl Serum/ plasma
storage: 4~30°C
detection range: 50-1000 ng/mL
reference value:

Result Reading (ng/mL)	Interpretation
≤ 200	Normal
200~400	Suspected pancreatitis
> 400	Pancreatitis

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Canine N-terminal B-type natriuretic peptide

cNT-proBNP

The canine N-terminal pro-B-type natriuretic peptide (NT-proBNP) is a biomarker synthesized and secreted by myocardial cells. It is of great significance in the assessment of the cardiovascular system function of dogs. The secretion of NT-proBNP is usually related to the stretching of the myocardium and the increase of pressure load. When there is dysfunction in the heart of dogs, such as heart failure, myocardial cells will release more NT-proBNP into the blood circulation, resulting in an increase in the concentration of NT-proBNP in the blood.

Clinical application:

Early Diagnosis of Heart Disease:

Early Diagnosis: For dogs with suspected heart failure symptoms such as shortness of breath, coughing, and weakness, detecting NT-proBNP helps in the early discovery of heart failure.

Differential Diagnosis: It helps distinguish the symptoms caused by heart failure from similar symptoms resulting from other respiratory or cardiovascular diseases.

For example, an elderly dog presents with breathing difficulties and coughing. If the NT-proBNP test result is significantly elevated, combined with examinations such as cardiac ultrasound, it can be diagnosed as heart failure.

Disease Assessment and Monitoring:

Assessing the Severity of Heart Failure: The higher the NT-proBNP level, the more severe the heart failure is usually indicated.

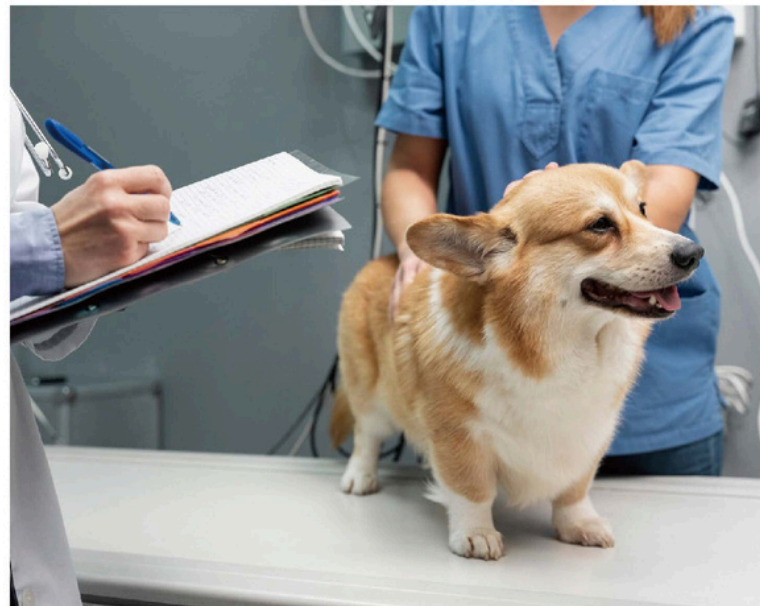
Monitoring Therapeutic Effects: During the treatment process, regular detection of NT-proBNP levels can help understand whether the treatment is effective and whether the condition is stable or improved.

Parameters & Result

species: Dog
sample: 50µl Serum/ plasma
storage: 4~30°C
detection range: 50-1000pmol/L
reference value:

Result Reading (pmol/L)	Interpretation
≤150	Normal
150 ~ 270	Suspected heart failure
> 270	Severe heart failure alert

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Canine Troponin I

Canine cTnI

Canine troponin I is a protein present in the myocardial cells of dogs. It plays a crucial role in the contraction and relaxation processes of myocardial cells. When the myocardium is damaged, such as in myocardial infarction, myocarditis, etc., canine troponin I will be released into the blood, causing an increase in its concentration in the blood.

Parameters & Result

species: Dog
sample: 100µl Serum/ plasma
storage: 4~30°C
detection range: 0.1-20.0ng/ml
reference value:

Result Reading (ng/ml)	Interpretation
≤0.1	Normal
> 0.1	Abnormal

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Clinical application:

Diagnosis of Myocardial Injury:

The determination of cTnI can help diagnose myocardial injury, including conditions such as myocarditis, cardiomyopathy and myocardial infarction. When dogs show relevant symptoms (such as breathing difficulties, weakness, fainting, etc.), the increase of cTnI indicates the existence of myocardial injury.

Evaluate the immune status:

For dogs that have been diagnosed with heart diseases, the determination of cTnI can be used to monitor the progression of the disease and assess the severity of the condition. By regularly determining the cTnI level, the changes of myocardial injury can be tracked.

Differentiating between Cardiac and Non-cardiac Causes of Symptoms:

When dogs show non-specific symptoms (such as loss of appetite, weakness, etc.), the determination of cTnI can help differentiate whether these symptoms are related to heart problems.



Canine D-Dimer

Canine D-dimer is a small fragment among fibrin degradation products. It is an important indicator reflecting the activation of the coagulation and fibrinolysis systems in the body. Under normal circumstances, the content of D-dimer in dogs is extremely low.



Clinical application:

Diagnosis of Thrombotic Diseases:

When thrombosis forms in a dog's body, such as deep vein thrombosis, pulmonary embolism, etc., the fibrinolytic system is activated and the level of D-dimer increases. For example, an elderly dog suddenly shows lameness. After examination, it is found that there is a thrombosis in the leg vein, and at this time, the level of D-dimer is significantly increased upon testing.

Evaluation of Disseminated Intravascular Coagulation (DIC):

DIC is a serious pathological process. The increase in the level of canine D-dimer is helpful for diagnosing DIC and judging its severity.

Monitoring the Risk of Postoperative Thrombosis:

After some major surgeries in dogs, monitoring the level of D-dimer can promptly detect the potential risk of thrombosis. Like a dog that has undergone a major orthopedic surgery, continuous monitoring of D-dimer after the operation. If the level keeps rising, it suggests that thrombosis may occur.

Parameters & Result

species: Dog
sample: 50µl Sodium citrate plasma
storage: 4~30°C
detection range: 0.1-10.0 mg/L
reference value:

Result Reading (mg/L)	Interpretation
≤0.5	negative
> 0.5	positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Canine symmetric dimethylarginine

cSDMA

cSDMA originates from the intranuclear methylation of L-arginine residues and is released into the cytoplasm after proteolysis. cSDMA is excreted by the kidneys and is a by-product of kidney metabolism. The level of SDMA in the blood can indicate the functional level of the kidneys. Generally, kidney function impairment can be detected as early as when 25% of kidney function is lost.

Clinical application:

Early Nephropathy Screening:

Since cSDMA increases in the early stage of renal function impairment, it is a powerful tool for the early detection of chronic kidney disease. This helps to treat and manage dogs before symptoms appear and improve prognosis.

Monitoring the Progression of Nephropathy:

By regularly determining the level of cSDMA, changes in renal function can be monitored, and the disease progression and treatment effect can be evaluated.

Evaluating the Impact of Other Diseases on the Kidneys:

cSDMA can also be used to assess the impact of other systemic diseases (such as heart disease, hypertension, diabetes, etc.) on renal function.

Guiding Treatment:

The cSDMA test results can assist veterinarians in formulating personalized treatment plans, including dietary adjustments, drug therapy, and lifestyle changes.

Advantage:

✓ High Sensitivity and Specificity

The detection of mild renal function impairment by cSDMA has high sensitivity and strong specificity.

✓ Not Affected by Non-renal Factors

Compared with traditional indicators (such as creatinine), cSDMA is less affected by non-renal factors such as muscle mass and diet, and is more reliable.

✓ Early Intervention

Through early detection and intervention, the progression of kidney disease can be delayed or prevented, and the quality of life and lifespan of dogs can be improved.

Parameters & Result

species: Dog

sample: 50µl Serum/ plasma

storage: 4~30°C

detection range: 1-100ug/dL

reference value:

Result Reading (ug/dL)	Interpretation
≤14	Normal
14 ~ 20	Susceptible
>20	High risk

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Canine progesterone

cProgesterone

Canine progesterone is a steroid hormone secreted by the corpus luteum of the ovary in dogs. It plays a vital role in the reproductive physiological processes of dogs.

Parameters & Result

species: Dog
 sample: 100µl Serum/ plasma
 storage: 4~30°C
 detection range: 0.5-100 ng/mL
 reference value:

Detection value (ng/ml)	Result judgment
≤0.1	Not in heat [Recommended to review in 2-4 days]
1.0 ~ 5.0	Already in heat but not ovulating [Recommended to have a follow-up check in 1-2 days]
5.0 ~ 15.0	Ovulation has started [Recommended to check again in 1-2 days]
15.0 ~ 30.0	Mating period [It is recommended to mate after 2-3 hours and for the second time after 48 hours]
30.0 ~ 50.0	Mating period [It is recommended to mate 2-3 hours later and perform the second mating 24 hours later]
50.0 ~ 70.0	Mating period [It is recommended to mate after 2-3 hours and perform the second mating after 12 hours]
> 70.0	Late estrus period [not recommended for mating]

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Clinical application:

Estrus Monitoring:

By detecting the progesterone level of dogs, the estrus stage of dogs can be accurately judged, and the best mating time can be determined.

For example, for a female dog in estrus, the progesterone level is regularly detected. When it reaches a certain threshold, it indicates that it is in the best conception stage.

Pregnancy Diagnosis:

In the early stage of dog pregnancy, the progesterone level will remain at a relatively high level. If the progesterone level drops, it may indicate a risk of miscarriage.

For instance, for a pregnant dog, if the progesterone level suddenly drops significantly, measures to prevent miscarriage need to be taken.

False Pregnancy Diagnosis:

Some dogs may experience false pregnancy. Detecting the progesterone level is helpful to distinguish true pregnancy from false pregnancy.

Like a dog showing symptoms of pregnancy, through testing the progesterone and finding that the level does not conform to the characteristics of pregnancy, it can be diagnosed as false pregnancy.



Canine cortisol

cCOR

The cortisol level in dogs can be influenced by various factors, such as the circadian rhythm, stress state, diseases, etc. Under normal circumstances, the cortisol level of dogs fluctuates to a certain extent throughout the day, usually being higher in the morning and lower in the evening.

Clinical application:

Diagnosis of Adrenocortical Hyperfunction (Cushing's Syndrome):

When dogs show symptoms such as polydipsia, polyuria, abdominal distension, symmetrical hair loss, etc., detecting cortisol levels is helpful for diagnosing Cushing's syndrome. If the cortisol level continues to increase and loses the normal circadian rhythm, it may indicate excessive secretion of cortisol by the adrenal cortex. For example, an obese dog shows symptoms such as thinner skin, susceptibility to infection, and muscle weakness. The detection of cCOR reveals a significantly increased level. Combined with other examination results, it is diagnosed as Cushing's syndrome.

Assess the Stress State:

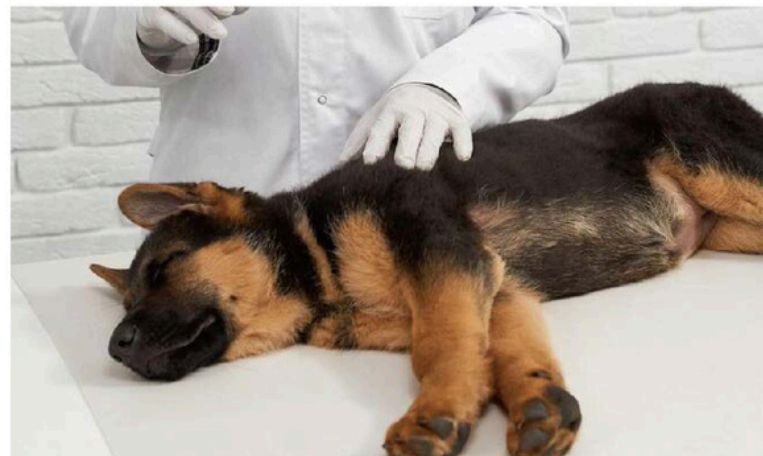
When dogs are exposed to stress stimuli such as surgery, pain, and fear, the cortisol level will increase. Detecting cCOR can help assess the stress level of dogs so that corresponding measures can be taken to reduce the adverse effects of stress on dogs. For instance, a dog shows restlessness and loss of appetite during hospitalization. The detection of cCOR reveals a relatively high level, indicating that the dog is in a strong stress state and measures such as soothing and environmental optimization are needed.

Parameters & Result

species: Dog
 sample: 10µl serum/plasma
 storage: 4~30°C
 detection range: 1-30ug/dL
 reference value:
 ACTH (adrenocorticotrophic hormone) stimulation test

Result Reading (ug/dL)	ACTH before use	After using ACTH
≤ 2	If the results before and after ACTH use are < 2ug/dL, it is consistent with adrenal cortex dysfunction	
2 ~ 6	Normal	Suspicious
6 ~ 18		Normal
18 ~ 24		Suspicious
> 24		Consistent with hyperfunction of the adrenal cortex

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Canine Total Thyroxine

cTT4

Canine total thyroxine (TT4), the full name of which is the total amount of free thyroxine in dogs (free thyroxine total), is an important indicator for evaluating the thyroid function of dogs. It refers to the total amount of free thyroxine (thyroxine not bound to proteins) in the blood. cTT4 is usually measured through blood tests.



Clinical application:

Diagnosis of Hyperthyroidism:

Hyperthyroidism is one of the common endocrine diseases in dogs. An elevated cTT4 level is usually an important indicator of hyperthyroidism. For example, when dogs show symptoms such as weight loss, increased appetite, restlessness, and rapid heartbeat, detecting cTT4 is helpful to determine whether there is a problem of hyperthyroidism.

Health Check for Senior Dogs:

As dogs age, the risk of thyroid dysfunction increases. Regular cTT4 testing for senior dogs helps detect thyroid-related problems early and enables timely intervention measures to be taken, improving the dogs' quality of life and lifespan.

Monitor the Therapeutic Effect:

For dogs that have been diagnosed with hyperthyroidism and are undergoing treatment (such as drug therapy or radioactive iodine therapy), regular detection of cTT4 can assist veterinarians in evaluating the effectiveness of the treatment plan. If the cTT4 level gradually returns to normal after treatment, it indicates that the treatment is working; conversely, if the cTT4 level continues to increase or shows no significant change, the treatment plan may need to be adjusted.

Parameters & Result

species: Dog
sample: 100µl Serum/ plasma
storage: 4~30°C
detection range: 0.3-12.5ug/dL
reference value:

Result Reading (ug/dL)	Interpretation
≤ 1.0	Low
1.0 ~ 2.0	Normal low
2.0 ~ 4.0	Normal
> 4.0	High

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Canine distemper antigen

CDV Ag

Canine distemper virus antigen (CDV Ag) is a specific protein on the surface of the canine distemper virus. Detecting whether canine distemper virus antigen exists in a dog is of great significance for diagnosing whether the dog is infected with the canine distemper virus.

Clinical application:

Early Diagnosis:

In the early stage of canine distemper virus infection in dogs, the presence of the virus can be detected in time by testing for CDV Ag, which is helpful to start treatment as soon as possible and increase the cure rate.

For example, a dog that has just shown mild symptoms such as fever and cough and is tested positive for CDV Ag can be quickly diagnosed and receive targeted treatment.

Disease Screening:

For dogs with unexplained fever, respiratory symptoms, or neurological symptoms, testing for CDV Ag is helpful to check whether it is canine distemper infection.

Like a dog that shows listlessness and loss of appetite, and is tested positive for CDV Ag, the cause of the disease is thus identified as canine distemper.

Monitoring treatment effect:

During the treatment process, regularly detecting the level changes of CDV Ag can help understand the clearance of the virus and evaluate the effectiveness of the treatment. For example, for a dog with canine distemper that is undergoing treatment, as the treatment progresses, the level of CDV Ag gradually decreases until it turns negative, indicating a good treatment effect.

Parameters & Result

species: Dog
sample: Eye, nose, throat swab
storage: 4~30°C
detection range: 10-80 IU
reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.



Canine parvovirus antigen

CPV Ag

Canine parvovirus (CPV) is a highly contagious and pathogenic virus for dogs. CPV Ag detection is to detect whether the antigen of canine parvovirus exists in the dog's body through specific methods and reagents. This detection method is usually based on immunological principles and can quickly and accurately determine whether a dog is infected with parvovirus.



Clinical application:

Disease Diagnosis:

When dogs show symptoms such as vomiting, diarrhea, fever and listlessness, CPV Ag testing can help veterinarians determine whether it is canine parvovirus infection. This is crucial for early diagnosis and timely treatment. For example, a young puppy suddenly has severe diarrhea and vomiting. After testing positive for CPV Ag, it can be diagnosed as canine parvovirus infection.

Evaluation of Vaccine Effects:

After vaccinating against canine parvovirus, detecting CPV Ag can evaluate whether the vaccine has produced effective immune protection. If the CPV Ag test of a dog after vaccination is negative after exposure to the virus, it indicates that the vaccine has played a good protective role.

Prognosis Judgment:

During the treatment process, conducting CPV Ag tests multiple times can help understand the clearance of the virus, thereby judging the development and prognosis of the disease. If the test results gradually turn negative, it usually indicates that the condition is improving.

Parameters & Result

species: Dog
sample: Fresh feces
storage: 4~30°C
detection range: 10-80 IU
reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Canine coronavirus antigen

CCoV Ag

Canine enteric coronavirus disease is an intestinal infectious disease of dogs caused by enteric coronavirus, belonging to the Coronaviridae family and the Coronavirus genus. Dehydration may occur, and the fatality rate is relatively low. It mainly causes enteritis in young puppies of low age. It has weak resistance to external physical and chemical factors, and most disinfectants can inactivate it.

Parameters & Result

species: Dog
sample: Fresh feces
storage: 4~30°C
detection range: 10-80 IU
reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Clinical application:

Disease Diagnosis:

When dogs show symptoms such as vomiting, diarrhea, loss of appetite and depression, testing canine coronavirus antigen can clarify whether it is caused by coronavirus infection. This is helpful to distinguish it from other diseases that may cause similar symptoms, such as canine parvovirus infection, canine distemper and intestinal parasitosis.

For example, a dog with persistent diarrhea was diagnosed with canine coronavirus infection by testing positive for canine coronavirus antigen.

Epidemiological Investigation:

Through large-scale testing of canine coronavirus antigen, understanding the infection rate and epidemic trend of the virus in different regions, different dog breeds and different age groups of dogs provides a basis for formulating more effective prevention and control strategies.

Evaluation of Therapeutic Effects:

During the treatment process, regular testing of canine coronavirus antigen can help understand whether the virus has been cleared and evaluate the effectiveness of the treatment plan. If the antigen level gradually decreases until it turns negative, it usually indicates that the treatment has achieved good results.



Canine adenovirus II Ag

CAV- II Ag

Canine adenovirus type II is a pathogen that can cause infectious canine hepatitis and respiratory diseases in dogs. Its antigen (CAV-II Ag) is a specific protein molecule on the surface of the virus that can be recognized by the immune system.

CAV-II Ag is highly specific and can stimulate the immune system of dogs to produce corresponding antibodies to fight against viral infection.



Clinical application:

Disease Diagnosis:

By detecting the presence of CAV-II Ag in dogs, it can be confirmed whether the dog is infected with canine adenovirus type II. This is crucial for the early detection and timely treatment of the disease. For example, in a pet hospital, doctors can collect the dog's blood, secretions or tissue samples and use specific detection methods such as enzyme-linked immunosorbent assay (ELISA) to detect the presence of the antigen.

It helps to distinguish canine adenovirus type II infection from other diseases with similar symptoms, such as canine distemper and canine parvovirus infection, thereby formulating an accurate treatment plan.

Epidemiological Investigation:

The detection and monitoring of CAV-II Ag in the dog population within a certain area can help understand the prevalence and transmission trend of the virus. For instance, regular testing is conducted in dog farms or kennels to take preventive measures to control the spread of the epidemic.

Vaccine Research and Development and Evaluation:

As an important target for vaccine research and development, it helps to design effective vaccines to induce immunity against CAV-II in dogs.

Parameters & Result

species: Dog

sample: Eye, nose, throat swab

storage: 4~30°C

detection range: 10-80 IU

reference value:

Result Reading (IU)	Interpretation
≤10	Negative
10~20	Carry
20~40	Weak positive
> 40	Positive

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.

Canine Antibody III

CDV/CPV/CAV- I Ab

The three canine antibodies usually refer to the antibody tests for canine distemper virus, canine parvovirus, and canine adenovirus type I.

Antibodies are a type of protein produced by the body's immune system after being stimulated by pathogens. They can specifically recognize and bind to pathogens, thereby helping to clear the infection.

Clinical application:

Evaluation of Immune Status:

Testing the levels of these three antibodies in dogs can help understand the immune status of the dogs. For example, if the antibody levels are high, it indicates that the dogs may have been vaccinated with related vaccines or have been infected before and developed immune memory.

For newly adopted or newly purchased dogs, by testing the antibody levels, it is possible to determine whether they have resistance to these three common infectious diseases.

Vaccine Effect Monitoring:

Testing is conducted within a period of time after the dog is vaccinated to evaluate whether the vaccine has successfully stimulated the body to produce sufficient antibody protection. If the antibody level does not meet expectations, booster immunization may need to be considered.

Disease Diagnosis Assistance:

Although a positive antibody does not necessarily mean a current infection, combined with clinical symptoms and other examination results, it can assist in judging the possibility of the disease.

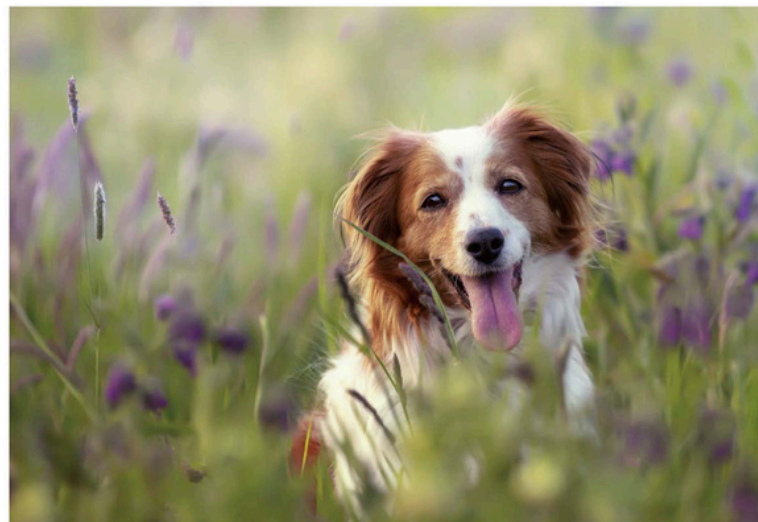
For dogs with symptoms such as unexplained fever and diarrhea, testing these three antibodies is helpful to investigate whether they are caused by these common virus infections.

Parameters & Result

species: Dog
sample: 10µl Serum/ plasma
storage: 4~30°C
detection range: 1.0-8.0 IU
reference value:

Result Reading(IU)	Level	Interpretation
≤ 1.6	S1	Immunodeficiency
1.6 ~ 2.0	S2	Low titer
2.0 ~ 2.5	S3	Medium titer
2.5 ~ 5.6	S4	High titer
5.6 ~ 8.0	S5	High titer
> 8.0	S6	High titer

*The above results are for reference only. The final diagnosis requires a professional veterinarian to make a comprehensive judgment based on medical history, clinical symptoms, or other examinations.





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