Healvet

Veterinary Immunofluorescence Quantitative Analyzer HV-FIA 3000

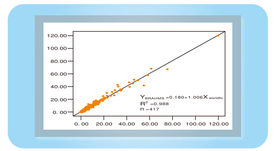
HV-FIA 3000
● Android System
●7-inch ultra-sensitive, dust-proof, waterproof capacitive touch screen
●High sensitivity and good repeatability
●Wireless connection printer
●Online update
●Compact and save space, 210*240 mm
●Chip information supports ID card reading and U disk reading
●Supports bi-directional protocol transmission
●Receive instrument abnormal information remotely

Rapid test mode to effectively meet the needs of large sample testing

Dry reagents, individually packed

Powerful information management function which can be directly connected to the medical management system

Convenient and quick, the detection time only takes 3~15 minutes



Good linear match with CLIA results

Android

Simple and convenient operation

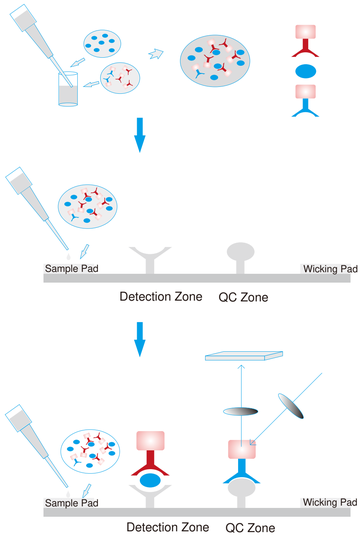
Wireless connections

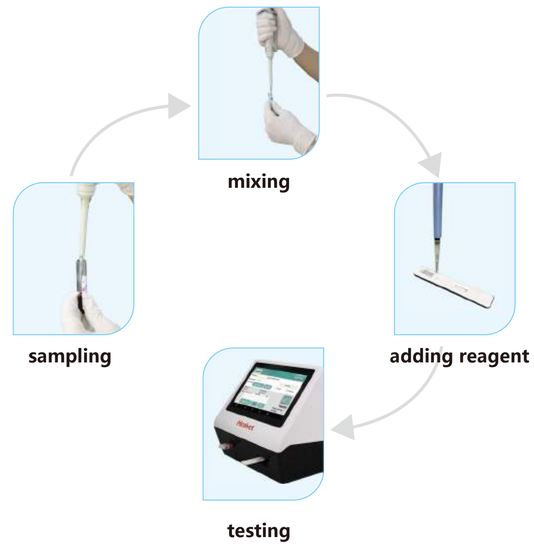
Accurate and reliable

Information management

Wide reagent testing menu

Test principle and operation





Test Menu

Product category	Project	Sample Type	Sample size	Reaction time
Inflammation (canine & feline)	cCRP	Serum,plasma or whole blood	10μL	3min
	fSAA		10μL	3min
Cardiac marker (canine & feline)	cNT-proBNP	Serum,plasma	75μL	15min
	fNT-proBNP		75μL	15min
	ccTnI		75μL	15min
	fcTnI		75μL	15min
	cNT-proBNP/ccTnI		75μL	15min
	fNT-proBNP/fcTnI		75μL	15min
Hormone (canine & feline)	cProg	Serum,plasma	75μL	15min
	Cortisol		75μL	15min
	T4 & Feline T4		75μL	15min
	TSH		75μL	15min
	C-RLN (canine relaxin)		75μL	15min
Diabetes (canine & feline)	cHbA1c	Whole blood	10μL	5min
	fHbA1c		10μL	5min
Pancreatitis (canine & feline)	cPL	Serum,plasma	75μL	15min
	fPL		75μL	15min
Thrombus function (canine & feline)	D-dimer	plasma or whole blood	plasma: 15μL whole blood: 10μL	5min
Renal function (canine & feline)	cCys C	Serum,plasma	10μL	10min
	fCys C		75μL	10min
	SDMA		75μL	15min
Gastric function (canine & feline)	HP	Faeces		10min

Product category	Project	Sample Type	Sample size	Reaction time
Infections (canine & feline)	CPV Ag	Faeces	75μL	10min
	CDV Ag	Eye, nose and mouth secretions		10min
	CCV Ag	Faeces		10min
	CPV/CCV Ag	Faeces		10min
	FPV Ag	Faeces		10min
	FCoV Ag	Faeces		10min
	FHV Ag	Eye, nose and mouth secretions		10min
	FCAV Ag	Eye, nose and mouth secretions		10min
	Rotavirus Ag	Faeces		10min
	Giardia Ag	Faeces		10min
	FeLV Ag	Serum,plasma		10min
	MP(Mycoplasma) Ag	Eye, nose and mouth secretions		10min
	CP(Chlamydia) Ag	Eye, nose and mouth secretions		10min
Antibody (canine & feline)	CDV/CPV/ICH Ab	Serum,plasma	75μL	10min
	FHV/FCAV/FPV Ab		75μL	10min
	Toxo Ab		75μL	10min
	Rabies antibody		75μL	10min
	FIV Ab		75μL	10min
Tumor marker (canine)	CPSE	Serum,plasma	75μL	15min
	cAFP		10μL	15min
Tick disease (canine)	EHR(Ehrlichia) Ab	Serum,plasma	10μL	10min
	ANA(Anaplamsa) Ab		10μL	10min
	LYM(Lyme) Ab		10μL	10min
	Babesia Ab		10μL	10min
Equine	eSAA	Serum	10μL	5min
	Foal IgG	Serum,plasma	10μL	15min
	eProg	Serum,plasma	75μL	15min

Under development

Equine ACTH
FeLV Ag
FIV Ab
Canine Leptospira

Canine C-Reactive Protein

cCRP

CRP is an acute phase protein in serum. There are trace amounts of CRP in normal dog serum,and its concentration begins to increase within 4 to 6 hours after inflammatory infection or tissue trauma, and reaches a peakat 24 to 48 hours. After symptoms resolve, CRP levels quickly return to the normal range. Therefore, CRP can be used to diagnose acuteinflammation and trauma, to monitor the outcome of rehabilitation after surgery or various treatments, and to monitor the recurrence of disease.

Clinical Application

Suspected Inflammation

Determine if there is inflammation and its severity.

Physical Examination

Predict hidden diseases in advance.

Guide Antibiotic Use

Determine if antibiotics need to be used or discontinued.

Postoperative Monitoring

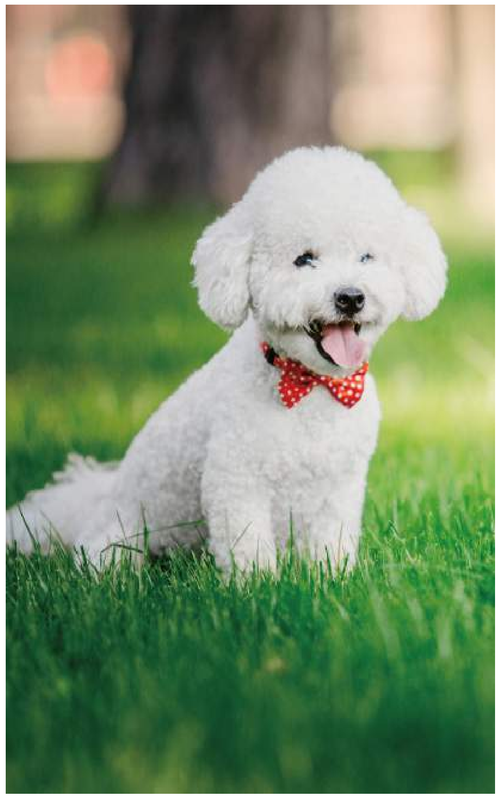
Judge the recovery and evaluate the complications.

Condition Monitoring

Judge the therapeutic effect and adjust the program in time.

Product Parameter

- **suitable animal：Dog**
- **sample type：Whole blood, serum, plasma**
- **sample volume：10μL**
- **testing range：2~250mg/L**
- **testing time：3 mins**
- **4-30°storage, 24 months shelf life**



Common Diseases

- Pyometra
- Endocarditis
- Nasal carcinoma
- Lymphoma
- Respiratory diseases
- Urolithiasis
- Renal failure
- Acute pancreatitis
- Hemangioendothelioma
- Hemorrhage and perforate
- Immune-mediated hemolytic anemia
- Immune-mediated thrombocytopenia
- Acute lymphoblastic leukemialdiopathic arthritis
- Intestinal adenocarcinomaMalignant mesothelioma
- Panniculitis
- Babesiosis
- Myocardial infarction
- Myelodysplastic
- Demodicidosis
- Chronic hepatitiss
- Malignant histiocytosis
- Cholangiocarcinoma

Feline Serum Amyloid A

fSAA

SAA is an acute phase protein secreted by the liver and bound to high-density lipoprotein(HDL) in plasma. SAA concentrations may increase up to 1000-fold when cats are in a state ofinflammation. Therefore, measuring SAA concentrations can be used to detect the presence ofinflammation. In addition, in cats, SAA is not only a marker of inflammation, but also aprognostic marker of various diseases, such as diabetes and hyperthyroidism.

Clinical Application

Suspected Inflammation

Determine if there is inflammation and its severity.

Physical Examination

Predict hidden diseases in advance.

Guide Antibiotic Use

Determine if antibiotics need to be used or discontinued.

Postoperative Monitoring

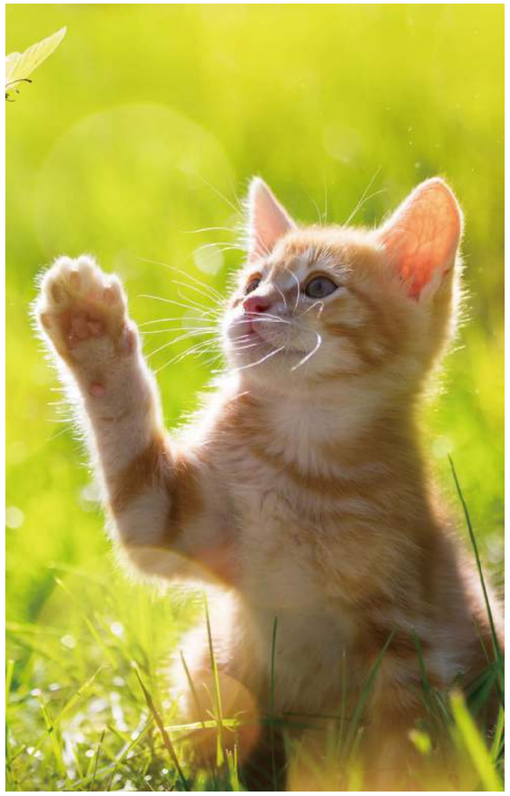
Judge the recovery and evaluate the complications.

Condition Monitoring

Judge the therapeutic effect and adjust the program in time.

Product Parameter

- **suitable animal：Cat**
- **sample type：Whole blood, serum, plasma**
- **sample volume：10μL**
- **testing range：5~300mg/L**
- **testing time：3 mins**
- **4-30°storage, 24 months shelf life**



Common Diseases

- Pyometra
- Diabetes
- Cystitis
- Kidney failure
- Virus infections
- Acute pancreatitis
- Bacterial infection
- Infectious peritonitis
- Malignant mesothelioma
- Squamous cell carcinoma
- Respiratory system diseases
- Hemorrhage and perforate
- Lymph cancer
- Adenocarcinoma
- Urolithiasis
- Cholangitis
- Hyperthyroidism
- Enterogastritis

N-Terminal prototype Brain Natriuretic Peptide

cNT-ProBNP & fNT-ProBNP

N-terminal pro-brain natriuretic peptide (NT-proBNP), mainly derived from the ventricle, is a substance released by myocardial tissue when blood pressure and ventricular wall pressurerise. It is mainly used to evaluate myocardial function. Clinically, NT-proBNP is more stable,and higher concentrations are associated with higher heart disease severity.

Clinical Significance

- Early detection of heart failure
- Diagnosis and classification of heart failure
- Distinquish heart failurefrom dyspnea causedby other factors
- Treatment monitoring and prognosis assessment

Product Parameter

- suitable animal：Dog, Cat
- sample type：Serum, Plasma
- Sample volume：75μL
- testing range：5-50000 pg/mL
- testing time：15mins
- 4-30°storage, 24 months shelf life

Clinical Application

- Hypertrophic cardiomyopathy (HCM)
- Dilated cardiomyopathy (DCM)
- Valvular Inadequacy
- Congestive Heart Failure (CHF)
- Dyspnea
- Hypertension
- Physical examination for elderly dogs and cats
- Hyperthyroidism

Cardiac Troponin-I

ccTnI & fcTnI

Troponin is a marker of myocardial injury and necrosis, which has important clinical significance for the diagnosis and riskstratification of acute myocardial infarction. Elevatedtroponin value indicates myocardial damage, which can be seen in acute myocardialinfarction, unstable angina, and pulmonary infarction. , heart failure shockand other diseases that cause myocardial damage such as pancreatitis, severe diabeticketoacidosis, connectivetissue diseases, etc. The higher the value, the wider the damage range, and some patients with renal insufficiency may

Product Parameter

- **suitable animal：Dog, Cat**
- **sample type：Serum, Plasma**
- **Sample volume：75μL**
- **testing range：0.1-20 ng/mL**
- **testing time：15mins**
- **4-30°storage, 24 months shelf life**

Clinical Application

Suspected Myocardial Infraction

Toxic Cardiomyopathy

Intensive Care Unit (ICU)

Myocarditis

Congestive Heart Failure (CHF)

Thyroxine &Thyroid Stimulating Hormone

T4 & TSH

Thyroxine affects the function of almost all organs in the body, such as promoting growth and development, regulatingmetabolism of three major nutrients, promoting consumption of oxygen and production of heat, and excitability of thenervous system. Disorder of T4 secretion often causes canine hypothyroidism and feline hyperthyroidism. (Commonlyknown as fat dogs, thin cats)

Clinical Application

Diagnosis of canine hypothyroidism - currently accepted T4 and TSH co-examinations are first-line trialsthat can help identify more than 80% of dogs with primary hypothyroidism

Diagnosis of cat hyperthyroidism increased T4 and free T4 concentrations in 98% of cats

Continuous monitoring and prognosis of thyroid secretory diseases

Elderly dogs and cat's physical examination (Over 4-6 years old)

Preanesthetic examination

Progesterone

cProg

Canine progesterone is a natural progesterone secreted after the mature corpus luteum of the ovary, which has a significant effect on the morphology of the endometrium in vivo, and is an essential hormone to maintain the pregnancy of female animals.

Clinical Application

- **To determine optimal breeding dates**
- **To predict parturition dates or time a Cesarean section**
- **To detect reproductive disorders such as split heats, delayed puberty, silent estrus or hypoluteidism**
- **Natural breeding: Ideally breed every other day while the female is showing signs of standing heat. If only 2 matings will be performed, attempt to breed 4 and 6 days after the progesterone predicted LH surge.**
- **Fresh or chilled semen: Ideally inseminate 3 and 5 days after the progesterone predicted LH surge.**

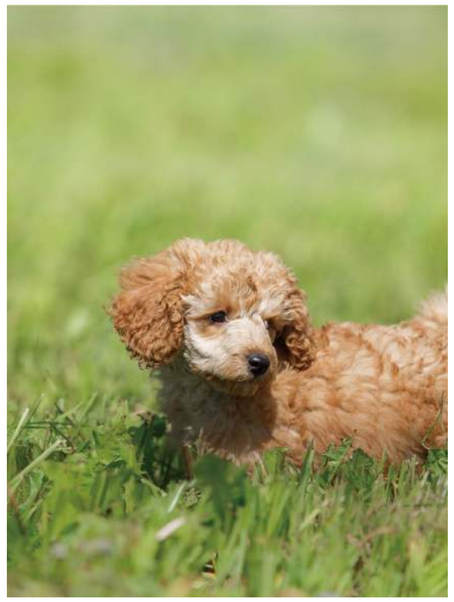
Canine/Feline Cortisol

Cortisol

Cortisol is a parahormone produced by the adrenal glands instress response. Cortisol increases blood pressure, blood sugarand immune suppression. High cortisol in dogs and cats cancause Cushing's syndrome while Low cortisol is associated withAddison's syndrome. Diagnosis of canine/feline adrenocorticaldysfunction requires a combination of clinical manifestationsphysical, biochemical and related hormone tests such as ACTH stimulation tests, low - and high-dose dexamethasone inhibitiontests， and even abdominal ultrasound and pathologicalsections.

Clinical Application

- Elderly dogs and cat's physical examination (Over 4-6 years old)
- Diagnosis of Cushing's syndrome
- Diagnosis of Addison syndrome
- Therapeutic surveillance of Cushing's syndrome and Addison's syndrome



Glycated hemoglobin

HbA1c/fHbA1c

Glycated hemoglobin (HbA1c) is a non-enzymatic stable glycosylation product formed byglucose GLU in blood and hemoglobin HGB in red blood cells.Once formed, HbA1c is presentthroughout the life cycle of red blood cells and is proportional to blood glucose concentration.The HbA1c level reflects the average blood sugar level of the dog in the 90 days before the test. It has nothing to do with the blood drawing time, whether the dog is fasting, whether the dog uses insulin or not. It is a good indicator forjudging diabetes and long-term control.

Clinical Application

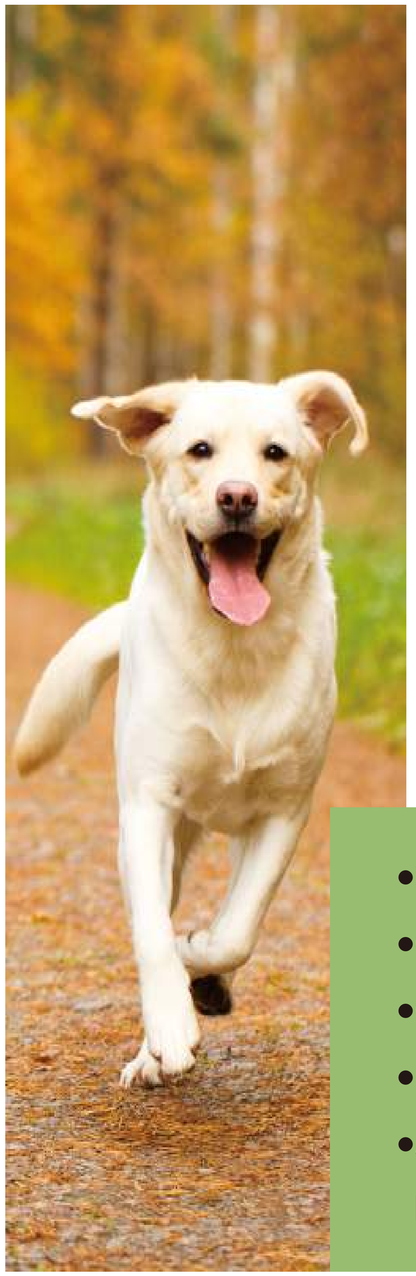
- Potential diabetes can be detected
- diagnosis of diabetes
- follow-up of diabetes treatment effects
- Necessary checkups before surgery
- Necessary for the health examination of middle-aged and elderly dogs and cats
- argeting high prevalence groups of diabetes (obese dogs and cats, untied females, tied male cats)

D-Dimer

D-Dimer is a specific degradation product of cross-linked fibrin under the action of plasmin.The content of D-Dimer in normal body plasma is very low. Its increase indicates that fibrinthrombosis and fibrinolysis have occurred in the body.As one of the molecular markers ofhypercoagulability and hyperfibrinolysis in vivo. D-dimer is a sensitive indicator of DIC (disseminated intravascular coagulation) and a marker of systemic thrombosis (such aspulmonary embolism), and its elevation has diagnostic significance for DIC and systemic thrombosis. In addition D-dimer is also a marker of hypercoagulable states such as tumors and heart disease.

Clinical Application

- Diagnosis of arterial thrombosis
- Pulmonary Embolism (PE)
- Deep Venous Thrombosis (DVT)
- Severe inflammation
- Postoperative & preoperative examination
- Disseminated Intravascular Coagulation (DIC)



Cystatin C

cCys-C & fCys-C

Cystatin C, a protein belonging to the cystatin protease inhibitor family, is produced at aconstant rate by all nucleated cells and is an ideal endogenous marker whose concentrationin blood is almost entirely dependent on GFR. It is freely filtered by thekidneys and brokendown after absorption in the proximal tubule;in fact, it does not return to the blood unless the proximal tubule is injured. In nephrology, this endoge□nous substance is seen as a marker of renal excretory function and is more sensitive than creatinine.

Clinical Application

- Screening for early canine chronic kidney disease
- Check renal function before anesthesia
- Clinical diagnosis of renal disease
- Detection of nephrotoxic diseases
- Assessment of renal failure in combination with blood biochemistry

Pancreas-specific Lipase

cPL

Canine acute pancreatitis is often a life-threatening sudden and serious condition, but early diagnosis and treatment are not easy because the diagnosis is challenging and symptoms are not specific. cPL is considered to be the most specific enzyme that increases in dogs with pancreatitis and measurement of cPL is highly sensitive for a diagnosis of pancreatitis. Also cPL is little affected by other drugs or digestive disorders, thus it is useful for early diagnosis of pancreatitis. Continuous quantitative measurement also helps assess the treatment response of pancreatitis and secondary damage to pancreas caused by other digestive diseases.

Clinical Application

●Clinical signs of acute pancreatitis: abdominal pain, anorexia, vomiting, dehydration, etc.

●Treatment: when considering fluid therapy, analgesics, antiemetics, and antibiotics, etc.

●A specific enzyme released only from pancreas that enables early diagnosis of acute pancreatitis.

●To monitor the treatment response by continual testing

●To assess the secondary damage to pancreas in case of other digestive diseases such as cholecystitis or enteritis, etc.

●To evaluate the prognosis by measuring CRP simultaneously.

fPL

It is more difficult to diagnose feline pancreatitis with routine clinical chemistry tests or diagnostic imaging because the sensitivities and specificities of these diagnostic methods are low. fPL is a pancreas specific lipase that increases in pancreatitis. Measurement of fPL has the highest sensitivity and likely the highest specificity and is the only reliable test for pancreatitis currently available in cats. Also, It helps to evaluate treatment response by continuous measurement.

Clinical Application

●Nonspecific clinical signs of pancreatitis: poor or absent appetite, lethargy, weight loss, dehydration, and diarrhea

● Feline pancreas-specific lipase test correlates very well with pancreatic inflammation

●The best overall sensitivity and specificity compared to other serum markers

●To diagnose and rule out feline pancreatitis

●Time-course monitoring of pancreatitis in cats during recovery

● To assess the secondary damage to pancreas in case of other digestive disease such as cholecystitis or enteritis, etc.

Antibodies

Vaccination is one of the effective ways to prevent infectious diseases in pets.Vaccination can not only reduce the susceptibility to infectious diseases, but also improve the specific resistance of pets to infectious diseases. The success of immunization depends not only on thequality of vaccination, the route of vaccination, maternal antibodies and immunization procedures and other external conditions, but also on the internal factor of the body's immune response ability, so regular antibody determination is beneficial toKeeping pets in a healthy state can also effectively prevent over-immunity.

Clinical Application

Before and after reimmunization

Before and after primary immunization

Diagnosis and treatment period

Operation period

Physical examination

Parameters

- FHV/FCAV/FPV Ab
- CDV/CPV/ICH Ab
- RV Ab
- TOXO Ab
- FPV Ab
- FHV Ab
- FCAV Ab
- CDV Ab
- CPV Ab

Infections

Immunofluorescence detection products suitable for in vitroquantitative detection of virus content in dog and cat samples. It can be used for epidemiological investigations of dog and cat infectious diseases, detection of dog and cat infectious diseases, etc., and feedbackaccurate disease information of animals for timelyprevention or treatment.

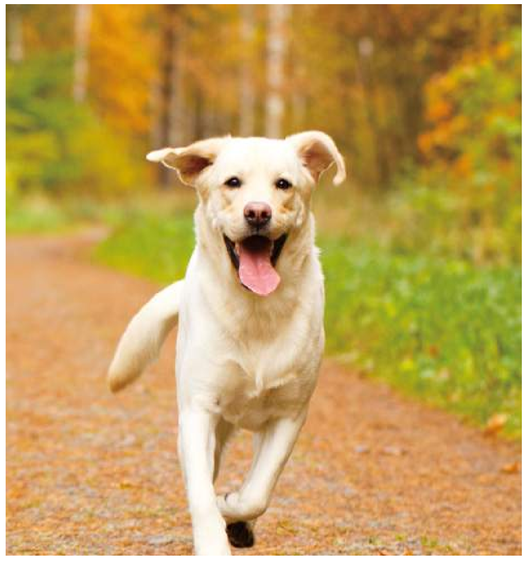
Specification

●Read the results within 10 minutes.

●Reading the RAPID test results visually can lead to ambiguous interpretation, especially for samples that have low levels of analyte. With Healvet analyzer, a more precise and objective result is produced for better diagnosis.

Parameters

- CDV Ag
- CPV Ag
- CCV Ag
- CPV/CCV Ag
- FPV Ag
- FCoV Ag
- FHV Ag
- FCAV Ag
- Rotavirus Ag



Helicobacter Pylori Ag

HP Ag

Helicobacter pylori infection of gastric mucosa is the main cause of gastritis, gastric ulcer, adenocarcinoma and lymphoproliferative diseases. The toxins and toxic enzymes produced can destroy the gastric mucosal barrier, cause inflammation and immune responses in the body, increase the secretion of gastrin, and eventually lead to a series of diseases.

Clinical symptoms

• Gastrointestinal symptoms

Indigestion, long-term loss of appetite, acid reflux, vomiting, etc.

•Oral symptoms

Bad breath, periodontitis, thickened tongue coating, dry oral mucosa

•Other

Tired easily, prone to lying down, not active, etc.

Remark

•Pets and people can infect each other, and the homology rate of HP isolated from pet owners and dogs and cats can be as high as 100%, which confirms that HP can be transmitted between pet owners and pets.

•Once infected with HP, it is permanently carried without drug treatment! HP cannot be eradicated only by changing eating habits and eating some health foods. It must be eradicated by regular medication, and there is a possibility of recurrence after eradication.

•The infection rate of Helicobacter pylori in humans and pets exceeds 50%.

•The incidence rate after infection with HP is about 10%, indicating that although the probability of infection with HP is high, it does not necessarily have clinical symptoms, or only very mild symptoms that are not easy to be detected. Because of this, we need to check whether pets are infected with HP, treat and eradicate them as soon as possible, and reduce the possibility of pets infecting humans.

Equine Serum Amyloid A

eSAA

Equine SAA test kit is an in vitro diagnostic test kit for the quantitative measurement of Serum Amyloid A (SAA) concentration in equine serum and plasma. In the case of normal horses, the concentration of SAA is very low in their serum and plasma, but it increases rapidly when a pathological phenomenon occurs such as infection, tissue damage or inflammatory disorder.

Clinical Application

- **Monitoring post-operative effects and recovery after surgery**
- **Measuring the inflammation response to treatment**

SpecificClinical Application

SAA concentration increases in response to a number of clinical conditions in horses, such as sepsis, viral infections, arthritis, gastrointestinal and reproductive disease. Its measurement is also useful for the ongoing monitoring of treatment response.

Infection

- Bacterial: Sepsis, abscesses, strangles
- Vira: Equine herpesvirus-1 (EHV-1), Equine influenza virus (EIV)

Gastrointestinal disease

- Diarrhea and enteritis (foal)
- Colic (adult horse)

Joint disease

- Aseptic arthritis
- Infectious arthritis

Reproductive disease

- Septic abortion
- Abortion of unknown aetiology

Foal IgG

Neonatal foals are born without antibodies and are unable to produce their own immunoglobulin G (IgG) initially. If a foal fails to consume an adequate amount of high-quality colostrum within 24 hours, its IgG levels will be low, increasing the risk of severe infections. Foal IgG test gives fast, accurate results in just minutes—enabling you to detect low levels of IgG and begin life-saving treatment immediately.

Clinical Application

- **Assessing immune levels of neonatal foals**
- **Evaluate the quality of the mare’ s colostrum after foaling**
- **Monitor the immune level serially**

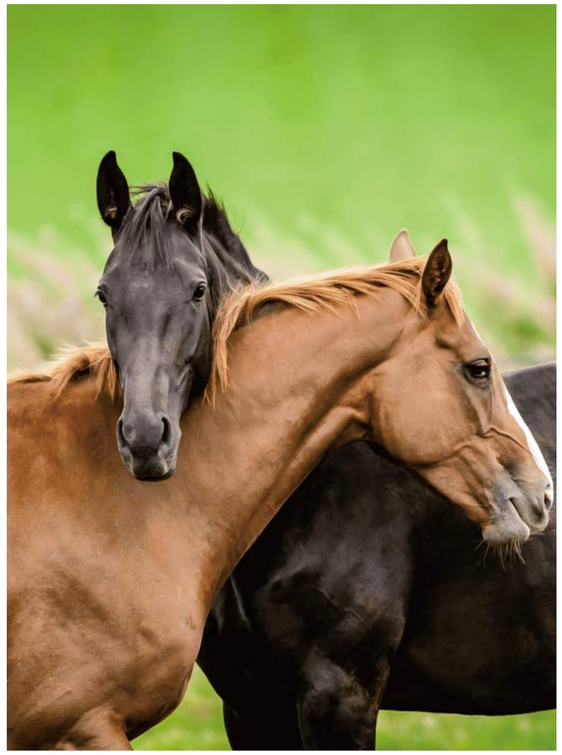
Equine Progesterone

eProg

Progesterone plays a crucial role in the maintenance of pregnancy until 120 days of gestation when the placenta becomes the primary maintainer. In non-pregnant mares, progesterone can also be used in tracking heat cycles and hormone influxes. Equine progesterone is an in vitro diagnostic test kit for the quantitative measurement of equine progesterone in serum or plasma, providing fast and precise results.

Clinical Application

- **To predict estrus cycles in mares**
- **To predict progesterone levels in mares**
- **To track heat cycles**
- **To monitor and manage behavior**



Canine prostate-specific esterase

CPSE

1. The CPSE product is a major androgen dependence of canine prostatic secretion. CPSE contains more than 90% of the protein in prostate fluid, and exist in seminal plasma and blood.
2. Research has shown that people with a variety of prostate disease of dogs CPSE is higher. The serum concentration of CPSE increases when prostatic cells proliferate. It has high specificity and can be used for the early diagnosis of benign prostatic hyperplasia (BPH) in dogs.

Clinical symptoms

• Screening for early benign prostatic hyperplasia (BPH) in dogs can assist in the diagnosis of canine prostate disease.
• Physical examination of breeding male dogs and screening of healthy dogs.
• Monitoring the therapeutic effect of dogs with confirmed disease.
• Pet with frequent urination, urgent urination, hematuria, urinary retention and other symptoms, resulting in urinary system infection, prostate function test was performed to evaluate pet prostate function and reproductive health.

Canine alpha-fetoprotein

AFP

AFP is a protein that the liver makes when its cells are growing and dividing to make new cells. AFP is normally high in unborn puppies. After birth, AFP levels drop very low. Healthy puppies and adults Dog who aren't pregnant have very little AFP in their blood.
An AFP tumor marker test is a blood test that measures the level of AFP (alpha-fetoprotein) in a sample of your blood. It's usually used to help diagnose certain types of cancer and to check how well treatment is working.

Clinical symptoms

- **Auxiliary diagnosis of liver cancer in dogs**
- **Screening for acute and chronic hepatitis or cirrhosis in dogs**
- **Monitoring the curative effect of surgical treatment of liver cancer, evaluating the therapeutic effect, and checking whether the cancer recurred**
- **Physical examination of elderly dogs**

Diagnosis

1. Blood biochemical tests
2. Imaging studies
3. Liver biopsy
4. Detection of serum markers of liver cancer: alpha-fetoprotein (cAFP) Hepatitis, cholangitis and other related liver diseases have a transient increase in AFP, which usually lasts for 2-3 weeks. However, neoplastic diseases and cancer were continuously elevated and at a high level. The risk of liver cancer is higher if the dog has chronic hepatitis or cirrhosis. A very high or sudden increase in alpha-fetoprotein levels may be an early signal of HCC.

Canine Relaxin

C-RLN

Canine Relaxin is produced by the developing placenta following implantationof the embryo, and can be detected in the blood in ost pregnant females asearly as 22-27 days post-breeding. The level of relaxin remains elevatedthroughout pregnancy, and decines rapidly following the end of the pregnancy.The test can quickly detect the concentration of relaxin in canine serum andplasma by fuorescence quantitative immunochromatography.

Clinical significance

● In dogs, relaxin is one of the hormones specifically produced during-gestation when the embryo attaches and the placenta forms, and changes inserum relaxin levels can be used for the clinical diagnosis of pregnancy in dogs, which is known as early pregnancy diagnosis.
● There were significant differences in the serum levels of relaxin between the different reproductive states of the animals, such as non-pregnancy, pseudo-pregnancy, pregnancy, post-delivery and abortion, and the levelsof relaxin were significantly higher in normal pregnancy than innon-pregnancy, pseudo-pregnancy, abortion and post-delivery.

Clinical application

● Widely used in the diagnosis of early pregnancy in dogs.

● Each fetus produces relaxin, and it is ultimately possible to estimate thenumber of fetuses by estimating relaxin content.

Giardia Ag

Giardia is a protozoan parasite, which is one of the common parasites in intestinal infection. It is also one of the zoonotic pathogenic parasites, which can infect people, pet dogs and cats. As the intermediate host of Giardia, Giardia is mainly parasitic in the small intestine, which is very harmful to dogs and cats.

Transmission

① It is mainly transmitted through faeces, and when the pet defecates, infectious cysts may be present in the faeces.
② Contaminated water and food;
③ dogs and cats come into contact with cysts in the environment when they go out;

Clinical symptoms

● Dogs:
1. After infection, a few adult dogs show transient intermittent diarrhea or chronic diarrhea, discharge of a large number of foamy loose stools, depression, loss of appetite, progressive emaciation, anemia and vomiting, and generally low body temperature.
2. The cross infection rate of puppies in the litter is high, up to 100%, and the symptoms are also serious, manifested as depression, and there are first acute and then severe and intermittent diarrhea. The feces are gray, with mucus and blood, and symptoms such as dehydration and emaciation begin to appear after 2 days of diarrhea.

● Cat:
1. The kitten showed abdominal distension, yellow mushy stool, loose anus, rough coat, and occasional bloody or jelly-like loose stool.
2. Adult cats rarely show symptoms of diarrhea but can become potential carriers of the virus. Giardia is often excreted in the faeces of other cats or pets after infection and may become infected if other cats or pets eat the faeces or contaminate food or drinking water.

Ehrlichia Ab、Lyme Ab Anaplamsa Ab

EHR Ab、LYM Ab、ANA Ab

Tickosis in dogs is a common parasitic disease, which causes serious harm to dogs. Summer is the high incidence period of tickosis. Pathogens such as viruses, bacteria, spirochetes and protozoa carried by ticks can be transmitted by ticks. Emerging and re-emerging infectious diseases transmitted by ticks, such as canine Lyme disease, canine babesiosis, canine anaplasmosis and canine Ehrlichiosis, can cause serious harm to dogs and even death.Tick-borne diseases are also zoonotic.

Ehrlichiosis

Canine Ehrlichiosis is an infectious disease caused by ticks transmitted by Ehrlichia of the Rickettsia genus. The disease usually occurs in late summer and early autumn, and the main infectious vector is Rhipicephalus sanguineus. Young ticks and tick-bitten dogs can transmit the disease for at least 155 days after infection, and overwintering ticks can still transmit the disease to susceptible dogs the following winter.

Clinical symptoms:
① The incubation period was 8-12 days. Sickness dog periodic fever, loss of appetite, fluid flow mucous pus nasal and YanChi, anemia, weight loss;
② Vomiting, lymphadenopathy, erosion of oral mucosa, edema of limbs and scrotum, ascites, hydrothorax and gastroenteritis were observed in severely ill dogs. Some of the diseased dogs had erythema on the skin of the axilla and groin and felt sensitive. German Shepherd dogs often suffer from bone marrow formation disorders and hematopoietic dysfunction, leading to severe systemic bleeding such as epistaxis and eyeball hemorrhage and death.
③ The course of the disease generally went through three stages: acute stage, subclinical stage and chronic stage. In the chronic phase, when mixed with Babesia and blood Bartonella infection, the fatality rate is high. The height of young dogs was higher than that of adult dogs.

Lyme Disease

Lyme disease is transmitted to humans and animals by the bite of infected ticks from Borrelia burgdorferi, a member of the spirochetes family. It is a zoonosis transmitted by ticks.

Clinical symptoms of chronic infection may be acute: Fever and anorexia; Polyarthritis, lameness; Acute progressive renal failure; Neurological syndromes;

Anaplasmosis

Anaplasmosis is a bacterial disease associated with the presence of ticks that transmit the disease. It occurs and is prevalent in tropical and subtropical areas. It is common in the warm season in spring and autumn, and naturally subside in the cold season. There are two forms in dogs:
The genus phagocytophilium infects white blood cells (it also occurs in humans). The genus Rhodosporidium is transmitted by deer ticks and western black-legged ticks.
A second aproplasmal organism, Rhodosporidium sp., will infect dog platelets. Rhodosporidium species rival is transmitted by the brown dog tick.

Clinical symptoms: The common clinical manifestations were claudication and joint pain, lethargy, loss of appetite and fever. Less common are: cough, seizures, vomiting, and diarrhea.

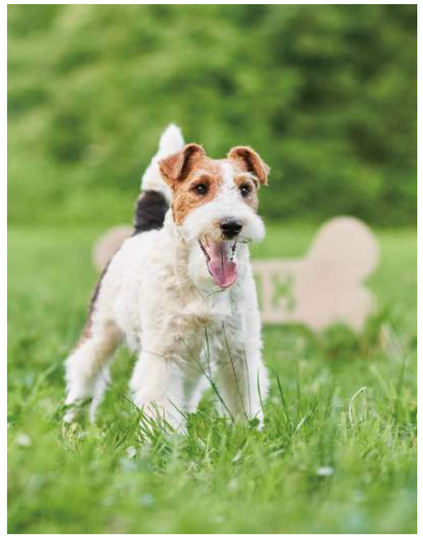
Symmetric Dimethylarginine

SDMA

SDMA is a biomarker for assessing kidney function, particularly in cats and dogs. It is a naturally occurring molecule in the body, produced as a byproduct of protein metabolism. Specifically, it's a methylated form of the amino acid arginine. Unlike creatinine, which is another biomarker for kidney function, SDMA is excreted almost exclusively by the kidneys. This makes SDMA a reliable indicator of kidney function, as its levels in the blood can reflect how well the kidneys are working.

Clinical Significance

SDMA test is a clinically significant advancement in veterinary diagnostics, offering earlier detection and more accurate monitoring of kidney function than traditional methods. This leads to better-informed treatment decisions, improved management of kidney disease, and ultimately, better outcomes for pets.



Clinical Symptoms

- **Early Symptoms:**

Increased thirst (Polydipsia)
Increased urination (Polyuria)
Decreased appetite (Anorexia)
Lethargy

- **Severe Symptoms:**

Seizures or tremors
Coma
Death

- **Advanced Symptoms:**

Weight loss
Vomiting and nausea
Dehydration
Bad breath (Uremic halitosis)
Mouth ulcers
Weakness or difficulty walking
Poor coat condition
High blood pressure (Hypertension)

Mycoplasma Ag

MP Ag

Mycoplasma is a type of cell wall-less microscopic prokaryotic organism that is widely distributed on the mucosal surface of animals, including the upper respiratory tract, digestive tract, and reproductive tract. These microorganisms belong to the Mycoplasma family and the Mycoplasma genus, which are between bacteria and viruses. Due to the lack of cell walls, mycoplasmas are resistant to certain antibiotics and can penetrate cell membranes to invade host cells.
Mycoplasmas are common in healthy animals, often in the form of asymptomatic carriers, and only show clinical symptoms when the animal's immunity is reduced or it is stressed, making it difficult to assess its impact on animal health. The presence of mycoplasma is a common phenomenon in healthy dog and cat populations. According to data analysis, the proportion of healthy dogs and cats that carry mycoplasma latently exceeds 65%.

Clinical Significance

Mycoplasma felis
Respiratory symptoms: Mycoplasma felis infection is common in upper respiratory tract infections (URI), manifested by symptoms such as sneezing, conjunctivitis, tearing and pneumonia. Clinically, the symptoms of Mycoplasma felis infection may heal within two to four weeks, but sometimes it is complicated by other viral infections (such as feline herpes virus and feline calicivirus).
Ocular symptoms: Conjunctivitis is a prominent feature of Mycoplasma felis infection, accompanied by a large amount of eye and nasal discharge.

Mycoplasma canis
Respiratory symptoms: Usually associated with canine infectious respiratory disease (CIRD), manifested by coughing, runny nose, and difficulty breathing. After infection, dogs may experience increased eye and nasal discharge and other respiratory-related symptoms.
Potential complications: Infection may lead to increased susceptibility to other pathogens, especially in dogs with low immunity. For example, Mycoplasma cynos causes reproductive organ disease in dogs.

Chlamydia Ag

CP Ag

Chlamydia in dogs and cats is a natural zoonosis caused by chlamydia infection. It is endemic and poses a great threat to both humans and animals. Chlamydia is an intracellular parasite that cannot proliferate outside the cell and is mainly ingested into the cell by the host's phagocytes.
Chlamydia infection is one of the common diseases in dogs and cats, especially in environments where multiple cats are in close contact, such as multi-cat households, animal breeding facilities and animal shelters. Chlamydia mainly causes conjunctivitis in cats and sometimes also causes upper respiratory tract infections.

Clinical Significance

Clinical manifestations of chlamydia infection in dogs and cats
Conjunctivitis symptoms: red eyes, tearing and increased secretions, usually starting from one side and then may develop into bilateral.
Upper respiratory tract symptoms: sneezing, runny nose, coughing, etc., which may cause pneumonia in severe cases.
Other symptoms: loss of appetite, depression, etc.

Chlamydia felis
After a cat is infected with Chlamydia, the incubation period is generally 3 to 10 days, with symptoms such as conjunctivitis, pneumonia, and rhinitis. Specific symptoms include eye discharge changing from transparent to yellow pus-like, accompanied by sneezing and runny nose. Pregnant cats may also experience miscarriage. In addition, due to decreased immunity, secondary bacterial infection may also occur.

Chlamydia canis
When dogs are infected with Chlamydia psittaci, the symptoms are similar to those of canine distemper, including abortion, pneumonia, enteritis, encephalomyelitis, polyarthritis and conjunctivitis. These can be used as a reference for differential diagnosis of canine distemper symptoms in clinical practice.

Babesia Ab

Babesia canis is a protozoan that is transmitted by tick bites (such as Rhipicephalus and Haemaphysalis). The pathogens are mainly Babesia canis and Babesia gibsoni, which parasitize the dog's red blood cells and cause symptoms such as anemia, jaundice, and splenomegaly. In addition, infected dogs can also be transmitted through direct contact, blood transfusion, or placenta. The disease is widely spread around the world. Especially in spring and summer, it is more common in areas with high levels of ticks.

Clinical Application

Symptoms of canine Babesia infection vary depending on the type of infection and immune status. Common symptoms include:

Acute symptoms

- Dogs may develop a high fever after infection
- Red blood cells are destroyed and mucous membranes (such as gums and corneas) may appear pale
- Red or orange urine (bilirubinuria) may appear
- The skin and whites of the eyes may turn yellow due to elevated bilirubin caused by hemolytic anemia
- Infection can cause dogs to become less active
- Difficulty breathing, vomiting, diarrhea, loss of appetite, etc.

Chronic symptoms

- Elevated chronic inflammatory markers (such as C-reactive protein)
- Continuous low-grade fever
- Weight loss
- Chronic anemia
- Enlarged spleen
- Enlarged lymph nodes

In severe cases, multiple organ failure or even death may occur. Urine may contain hemoglobin or protein.

Healvet

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