

Veterinary Immunofluorescence
Quantitative Analyzer

Applicability	Test Item	Reaction Time	Diseases	Sample vol	Specimen Type	Detection Range	Clinical Reference
Hormone	Cortisol	15min	Cushing's Syndroe, Edison Syndrome	75μL	Serum, Plasma-Heparin	10~1000nmol/L	Pre-ACTH test: 28~170nmol/L Post-ACTH test: 170~550nmol/L
	T4	15min	Hypothyroidism, Hyperthyroidism.	75μL	Serum, Plasma-Heparin	8~100nmol/L	Canine: 15~60nmol/L Feline: 15~50nmol/L
	TSH	15min	Hypothyroidism	75μL	Serum, Plasma-Heparin	0.1~100mIU/L	Canine: 0~37mIU/L Feline: 0~21 mIU/L
Fertility	Prog	15min	Pregnancy, embryogenesis	75μL	Serum, Plasma-Heparin	1~50ng/mL	Suitable for pregnancy: 10~20ng/mL Suitable for embryoge- nesis: >2 ng/mL
Infectipn Markers	CRP	3min	Inflammation, cardio-vascular diseases	10μL	Serum, Plasma-Heparin	2~250mg/L	Canine: 0~10ng/mL
	SAA	15min	Infection, Trauma	10μL	Serum, Plasma-Heparin	5~300mg/L	Feline: 0~8mg/L
Coagulation Markers	D-Dimer	5min	Thrombotic, corticosteroid	75μL	Serum, Plasma-Heparin	50~10000ng/mL	0~250ng/mL
Diabetic Mellitus	HbA1c	5min	Diabetes Mellitus	10μL	Plasma-Heparin	4%~14.5%	4%~6%



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Veterinary Immunofluorescence
Quantitative Analyzer
HV-FIA 3000

- Rapid
- Accurate
- Convenient
- Reliable
- Popular
- Extensible



T4, TSH, Cortisol, Prog,
CRP, SAA, D-Dimer, HbA1c



HEALVET DIAGNOSTICS LLC



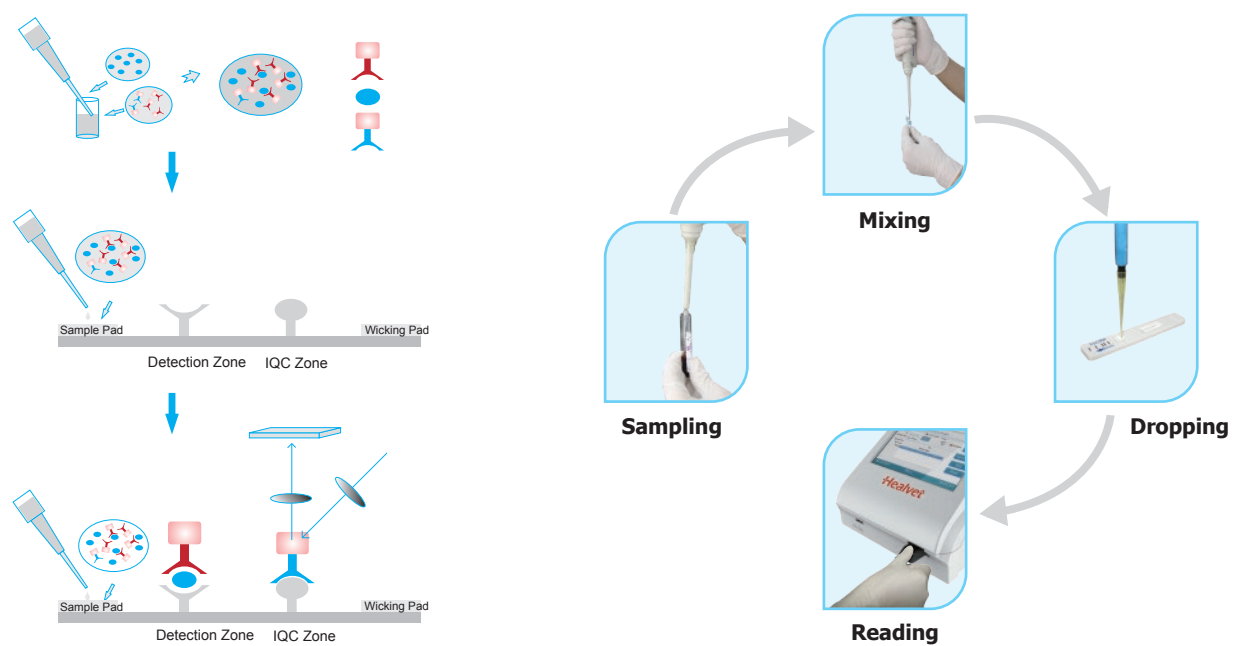
Easy-to-use Vet Diagnostic Device

- Immunofluorescence technology
- Testing time 3~15minutes
- Easy-to-use touch-screen platform, multi-language operation system
- Reagents stored at room temperature for 24 months
- Maintenance free

Test Item

- **Hormone**
T4、TSH、Cortisol
- **Fertility**
Prog
- **Infection**
CRP、SAA
- **Coagulation Markers**
D-Dimer
- **Diabetic Mellitus**
HbA1c
- **Ongoing**
PCT、MAU、NGAL、Cys-C、
NT-proBNP、cTnI、AFP、CEA

Principle and Operation



Choose HV-FIA 3000 For



Extra quick operating mode for large number of specimens

Unique quick mode



Powerful information management (Direct connection to LIS/HIS)

Dry-Type Reagent

Information management

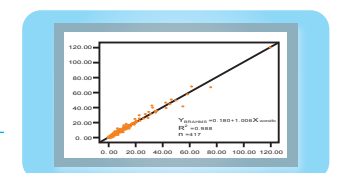
Reliable accuracy

Instant result

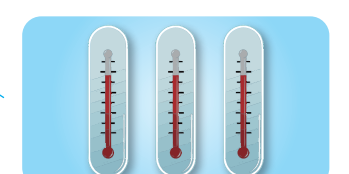
Room temperature storage



Dry-Type Reagent, individually wrapped with aluminum foil bag.



Good correlation with wet chemistry method results



Solid synthetic craft, can be stored at room temperature (4-30 °C)

Built-in Thermal Printer

Real-time printing

6"LCD touch screen

Dimensions:
298*248*388mm
Weight:
4kg
Power adapter:
100~240VAC, 50~60Hz



LIS Connection

Direct connection to LIS / HIS

ID Chip Port

The ID chip contains all information of test item and lot number

Test Channel

The Test Cartridge Holder

T4 (Total Thyroxin 4)

T4 (Total Thyroxin 4) is the major secretory hormone of the thyroid.

Only 0.03% of T4 is unbound and free for exchange with tissues.

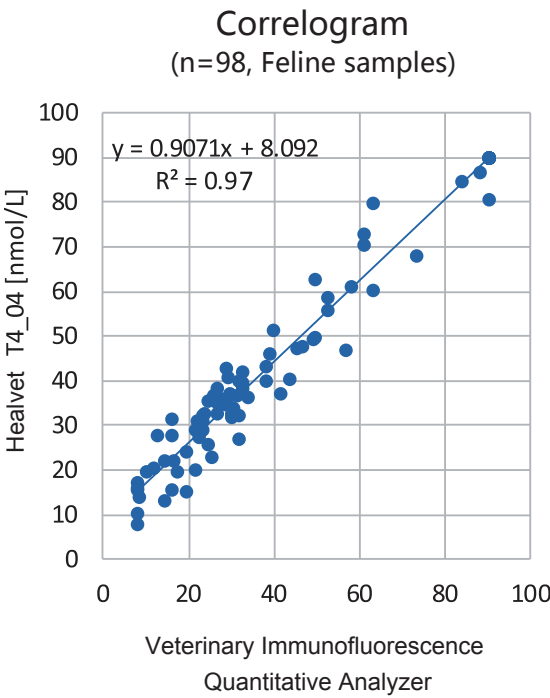
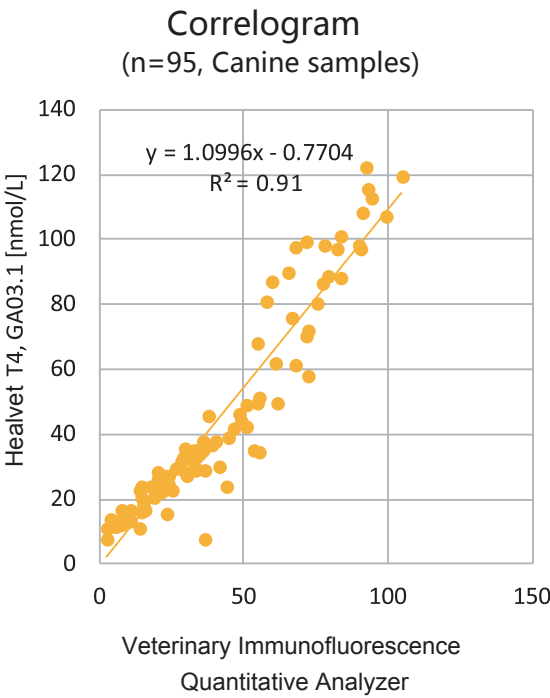
Features

- Animal: Canine, Feline
- Sample type: Serum, Plasma-Heparin
- Sample vol: 75µL
- Detection range : 8~100nmol/L
- Reaction time: 15 mins
- Maintenance free

Application

	Clinical value	nmol/L	µg/dL
Canine	Low	< 15	< 1.2
	Normal	15-60	1.2-4.7
	High	> 60	> 4.7
Feline	Low	< 15	< 1.2
	Normal	15-60	1.2-3.9
	High	> 50	> 3.9

Performance



TSH (Thyroid-stimulating hormone)

TSH (Thyroid-stimulating hormone) is a pituitary hormone that stimulates the thyroid gland to produce T4, and then T3 which stimulates the metabolism of almost every tissue in the body.

Features

- Animal: Canine, Feline
- Sample type: Serum, Plasma-Heparin
- Sample vol: 75µL
- Detection range : 0.1~100 mIU/L
- Reaction time: 15 mins
- Maintenance free

Application

When T4 is decreased, TSH needs to be detected to diagnose whether it is primary hypothyroidism. About 70% of hypothyroidism has a high TSH value.

T4	TSH	Clinical value
< 15 nmol/L	Canine < 37 mIU/L Feline < 21mIU/L	Not rule out Hypothyroidism
< 15 nmol/L	Canine > 37 mIU/L Feline > 21mIU/L	Suspicious of primary Hypothyroidism

Cortisol

Cortisol is a glucocorticoid in the adrenal cortex, which can be used to diagnose Cushing’ s Syndrome and Edison Syndrome.

Features

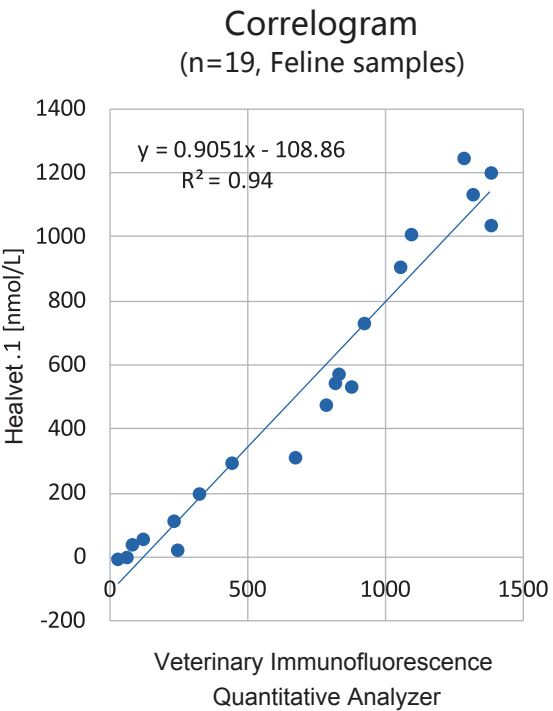
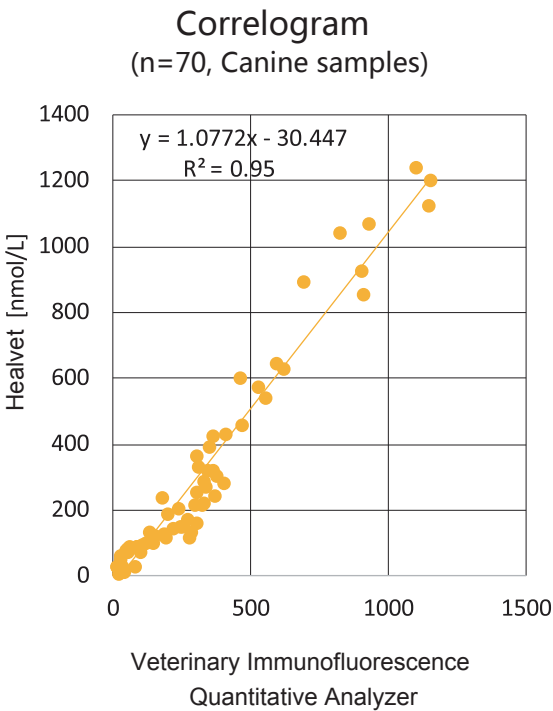
- Animal: Canine, Feline
- Sample type: Serum, Plasma-Heparin
- Sample vol: 75µL
- Detection range : 10~1000 nmol/L
- Reaction time: 15 mins
- Maintenance free

Application

- Cushing’ s syndrome (Hyper):
High blood pressure,
diabetes, skin diseases
- Edison’ s disease (Hypo):
Hereditary kidney disease

Pre-ACTH test	Post-ACTH test	Clinical value
< 28 nmol/L	< 28 nmol/L	Concerning Edison's disease
	28~170 nmol/L	Indetermination
28~170 nmol/L	28~170 nmol/L	Indetermination
	170~550 nmol/L	Normal
	> 550 nmol/L	Concerning Cushing’ s syndrome

Performance



Progesterone

Progesterone is an endogenous steroid and progestogen sex hormone involved in the menstrual cycle, pregnancy and embryogenesis of animals.

Features

- Animal: Canine
- Sample type: Serum, Plasma-Heparin
- Sample vol: 75µL
- Detection range : 1~50 ng/mL
- Reaction time: 15 mins
- Maintenance free

Application

Prog value (ng/mL)	Expected Ovulation time(day)	Expected Hybridization time(day)
0~1		Unsuited for Hybridization
1~2	There are at list two days for Ovulation coming	After 4~6 days
2~4	After one day, ovulation will coming	After 3~5 days
4~6	Expected Ovulation time is coming soon	After 2~4 days
6~10	Ovulation occurs no more than one day.	After 1~3 days
10~20	The ootid is mature and has the best potential for fertility.	After 0~2 days
20~30	The ootid is senile and the potential for fertility declines.	After 0~1 day
> 30	The potential for fertility has plummeted.	

CRP

The C-reactive protein (CRP) is synthesized by the liver in response to interleukin-6 and is well known as one of the classical acute-phase reactants. It is used as a marker of inflammation and cardiovascular diseases(CVD).

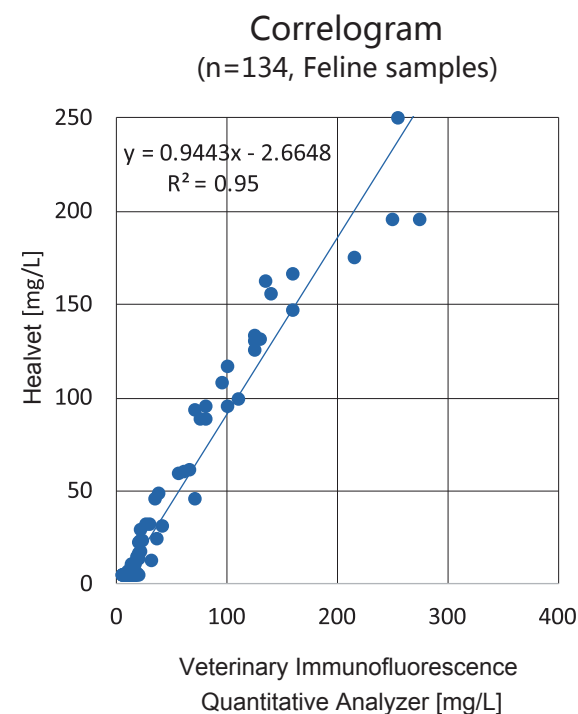
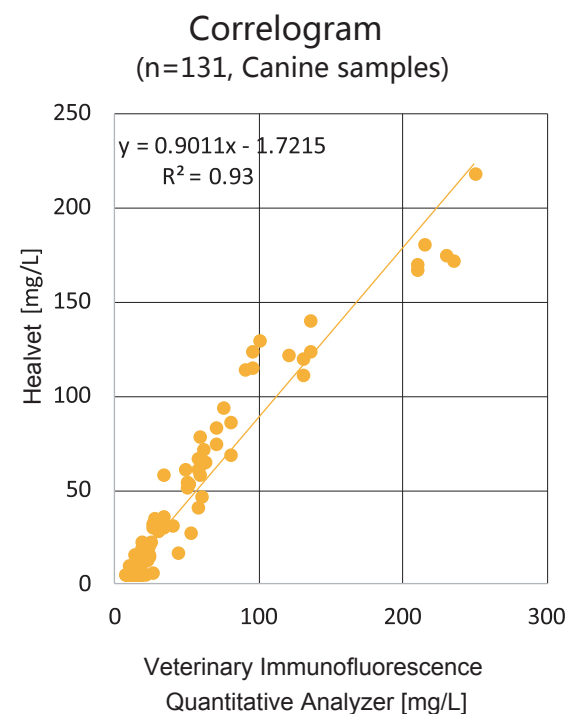
Features

- Animal: Canine,
- Sample type: Serum, Plasma-Heparin
- Sample vol: 10µL
- Detection range : 2~250 mg/L
- Reaction time: 15 mins
- Maintenance free

Application

- Increase response within 4~6 hours after Inflammation of the infection or Tissue trauma
- Peak after 24~48 hours
- recovered rapidly after the symptom eliminated
- Clinical range: 0 ~ 10 ng/mL: Normal
> 10ng/mL: Acute

Performance



D-Dimer

D-Dimer is a small protein fragment present in the blood after a blood clot is degraded by fibrinolysis. It is useful in the diagnostic evaluation of thrombotic diseases and monitor corticosteroid treatment.

Features

- Animal: Canine, Feline
- Sample type: Serum, Plasma-Heparin
- Sample vol: 75µL
- Detection range : 50~10000 ng/mL
- Reaction time: 15 mins
- Maintenance free

Application

- A marker for a thrombus in the blood vessel
- Auxiliary diagnosis for DIC
- A specific marker of fibrinolysis
- Serious inflammation
- Postoperative prognosis test
- Clinical normal range: < 0.25µg/mL (< 250ng/mL)

SAA

SAA is a member of a group of proteins called Acute Phase Proteins which have been found in many animal species and which are thought to be part of the body’s basic first line defenses against infection, disease or trauma.

Features

- Animal: Feline
- Sample type: Serum, Plasma-Heparin
- Sample vol: 10µL
- Detection range : 5 ~ 300 mg/L
- Reaction time: 15 mins
- Maintenance free

Application

- A marker for inflammation
- The prognosis for a variety of diseases (diabetes, hyperthyroidism)
- Clinical range:
0~8 mg/L: Normal
> 8 mg/L : Concerning inflammation

The following table shows the SAA reference values for certain diseases.

Acute Pancreatitis	56.9mg/L
Feline infectious peritonitis	29.4mg/L
Hyperthyroidism	16.5mg/L
Diabetes mellitus	14.9mg/L
Lymphoma	13.7mg/L
Cholangitis	11.9mg/L
Chronic renal failure	8.7mg/L

HbA1C

HbA1C is the product of the hemoglobin combining with blood glucose in red blood cells, which can reflect the average blood glucose level over the preceding 2~3 months. It is useful in the diagnostic evaluation of diabetic mellitus.

Features

- Animal: Canine
- Sample type: Plasma-Heparin
- Sample vol: 10µL
- Detection range : 4% ~ 14.5%
- Reaction time: 15 mins
- Maintenance free

Application

- Clinical range:
4% ~ 6% : Normal
6% ~ 8%: Diabetes subclinical stage
> 8% : diabetes