

# 2016

## BIONOTE Newsletter

Vol.27 No.12 newsletter



### FeliD-3

*Detection of Feline Panleukopenia, Coronavirus and Giardiasis infection.*



BioNote advertises FeliD-3 rapid test for the detection of three feline diseases at a time. Feline panleukopenia, Coronavirus and giardiasis infection are similar in each clinical sign such as severe diarrhea, and dehydration of cats. However, treatment protocols and prognosis of each disease are different. Therefore, it is necessary to find out what the etiologic agent is by fast and prompt diagnosis with the FeliD-3 for the quick and appropriate countermeasures and therapies.

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#### Feline Panleukopenia

FPV destroys actively dividing cells (BM, lymphocytes, enterocytes and cerebellum and retina)



1 year old

Diarrhea, Dehydration, Cerebellar hypoplasia, Ataxia, Tremor

#### Feline Coronavirus

FCoV : Enterocytes  
FIP : macrophage



All age

FCoV : Diarrhea  
FIP : Acute: Icterus, Vomiting, Diarrhea  
Chronic : Splenomegaly, Uveitis, Icterus, Kidney irregular mass

#### Feline Giardiasis

G.lambdia in mucosa of intestine (Fecal-oral route)



Symptoms apparent in younger animals

Acute : Severe diarrhea

# Improve the productivity of Pig Farms by BIONOTE/Anigen PED IgA ELISA

To protect piglets from PEDV, Sow transfers immuno-globulin through colostrum to them until the piglets acquire adaptive immunity. Many reports suggest that IgA is important for protection of PEDV. BIONOTE/Anigen IgA ELISA measures preventive anti PED virus IgA titers of sow and predict defense capability of piglets induced by passive antibody transfer.

## How to make the 'Magic milk'

BIONOTE/Anigen PED IgA ELISA can discriminate good quality sow milk or colostrum. After milking 300 to 500ml per a sow by clean-hands, it tested by a BIONOTE/Anigen PED IgA ELISA. H&E Biotech is a chinese distributor company of BIONOTE. H&E technical consultant, Dr. Xueping Li (Veterinarian)

recommends to make the 'Magic milk' being taken the colostrum with IgA O.D. ration higher than 1.5. Pack a bottle by a 50ml, write a date of milking and store in -10°C until 6 months

## Usage of Magic milk

The 'Magic milk' can be used both prevention and therapy method. Yearling can be administered 10ml of the 'magic milk' within 12 hours after birth for prevention of PEDV. Infected piglet recommended to be administered 10 to 20 ml twice a day in 3 days for therapy. A research of magic milk showed 6 piglets without the 'magic milk' all died within 4days, but 10 of 12 piglets with the 'magic milk' survived. The management using this 'magic milk' method can reduce infected piglets.

# Zoetis and BIONOTE Collaborate on diagnostics of livestock globally

Zoetis, the biggest global animal health company, and BIONOTE, a pioneer of in-vitro diagnostics for veterinary, have formed a strategic collaboration for the manufacture of test kits for livestock.

Under the collaborative arrangement, BIONOTE will perform precess development of some products and manufacture of collaborative products of test kits. The collaborative products are including ELISA(FMDV NSP Ab and CSFV Ab) and 9 kinds of diseases of RDT, rapid-tests, which are used for pigs and cows. They agreed to sell these collaborative products to global only except 7 countries.

The joint sales agreement is expected to provide faster growing in the global livestock diagnostic market.

Below is the collaborative products.



Rapid	ELISA
WITNESS <sup>®</sup> PED Ag	SERELISA <sup>®</sup> CSFV Ab Mono Blocking
WITNESS <sup>®</sup> PED/TGE/Rota Ag	SERELISA <sup>®</sup> FMDV NSP Ab Competition
WITNESS <sup>®</sup> BoviD-5 Ag	

# FCoV Ag/Ab

Antigen FCoV Ag/Ab rapid test provides a convenient and fast test of the feline Coronavirus infection. Antigen test allows you to diagnose viral shedding by the host and antibody test provides you information about past exposure to the virus thereby giving valuable information about the infection status of the animal. Especially, both antigen and antibody test is important in feline Coronavirus diagnosis. About 5% of FCoV-infected cats develop feline infectious peritonitis(FIP) which



is often lethal in infected hosts. However, because mutated form of feline Coronavirus causes FIP in cats, you can't distinguish the infection between FCoV and FIP. The biggest problem is that Coronavirus-specific Abs are present in up to 50% of cats in single-cat households making diagnosis even more difficult. So we recommend you to do both Ag and Ab test for the FCoV infection for more precise diagnosis and efficient treatment with the box below.

FCoV Antigen		NEGATIVE	POSITIVE	POSITIVE	NEGATIVE
FCoV Antibody		NEGATIVE	NEGATIVE	POSITIVE	POSITIVE
Diagnosis	FCoV		<ul style="list-style-type: none"> <li>No detectable antibody because less than 2 weeks has been past since virus infection</li> </ul>	<ul style="list-style-type: none"> <li>Present infection</li> </ul>	<ul style="list-style-type: none"> <li>Past or present infection</li> <li>No viral shedding</li> </ul>
	FIP	<ul style="list-style-type: none"> <li>Not infected</li> <li>No viral shedding</li> <li>Incubation Period</li> </ul>	<ul style="list-style-type: none"> <li>Low incidence of FIP infection</li> <li>Possible high Ab titer masked by Antigen-Antibody binding when the sample has large amount of virus</li> <li>Some cats with WET FORM FIP have low titers or no Abs against FCoV)</li> </ul>	<ul style="list-style-type: none"> <li>High antibody titer highly suggests DRY FORM FIP which is chronic</li> <li>Re-test 3 months later for the prognosis</li> <li>Not wise to adopt another cat</li> </ul>	<ul style="list-style-type: none"> <li>High antibody titer highly suggests DRY FORM FIP which is chronic</li> <li>Because antibodies decrease with disappearance of antigen, detectable antibodies means that the host might function as a carrier</li> </ul>
		<ul style="list-style-type: none"> <li>Some cats with no detectable antibody can also be virus carriers</li> <li>Vaccine may be indicated for seronegative cats entering a known FIP-infected household or cattery</li> </ul>	<ul style="list-style-type: none"> <li>Detectable Ab represent past or present infection</li> <li>As antibody titers decline following virus elimination (3~12 months), cats with persistent antibody should be treated as suspect virus carriers</li> <li>It is Not wise to get another cat</li> </ul>		

## 2016 Q1~2 BIONOTE CALENDAR

**MARCH 6th**\_ Royal Veterinary Clinic seminar (Seoul, South Korea)

**MARCH 7th~9th**\_ Western Veterinary Conference 2016 Annual Conference (Las Vegas, USA)

**MARCH 10th**\_ Veterinary regional seminar in University Putra Malaysia (Selangor, Malaysia)

**APRIL 11th~14th**\_ The 5th Chinese Small Animal Veterinary Conference (Haikou, China)

**APRIL(Est.)**\_ Young-nam Veterinary Conference (South Korea)

**MAY 24th~27th**\_ The 8th Small Animal Veterinary Congress of Eastern & Western China (Suzhou, China)