

LIVESTOCK ANIMAL

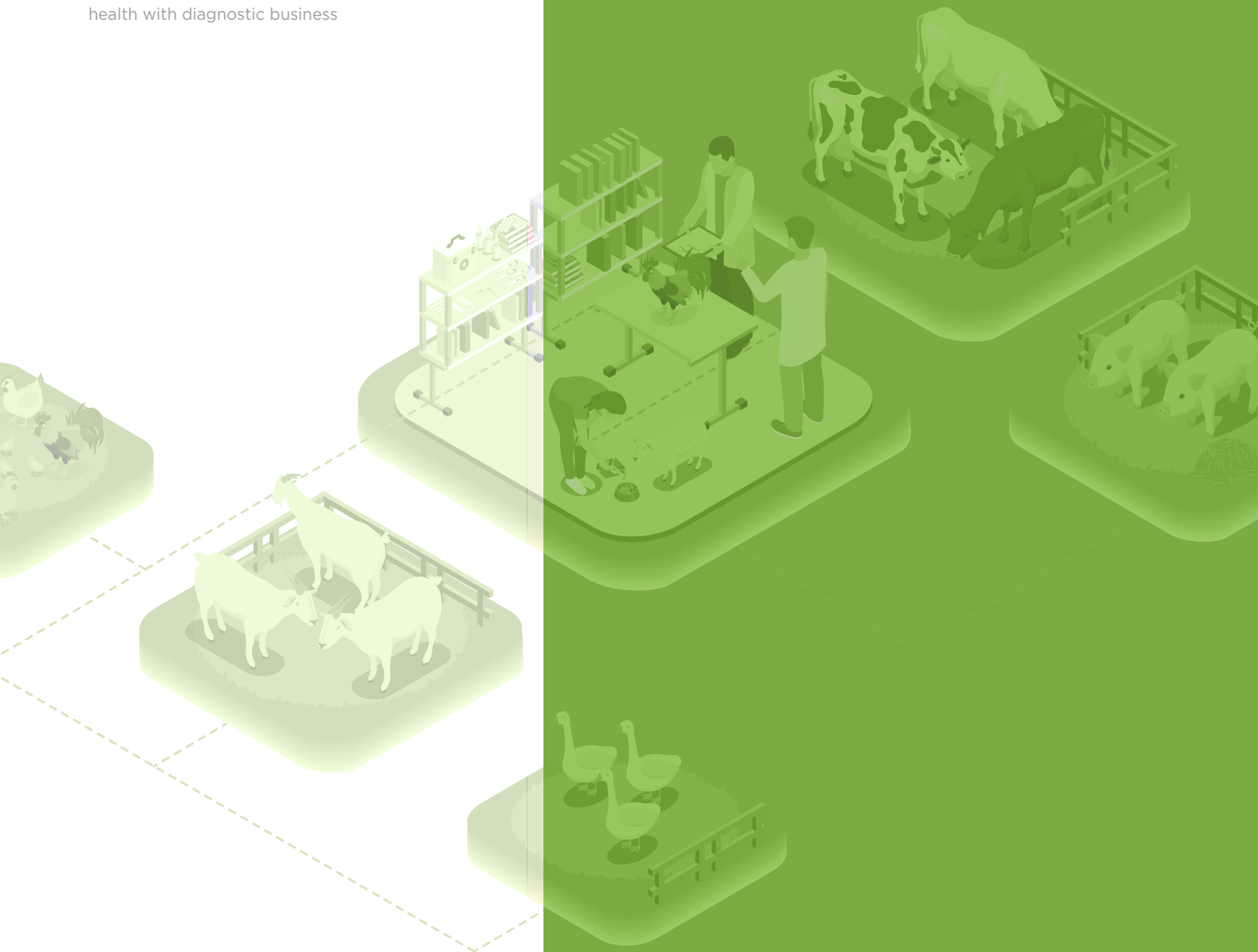
Rapid kit Product Catalogue



LIVESTOCK ANIMAL

Rapid kit Product Catalogue

Let's contribute to human and animal
health with diagnostic business

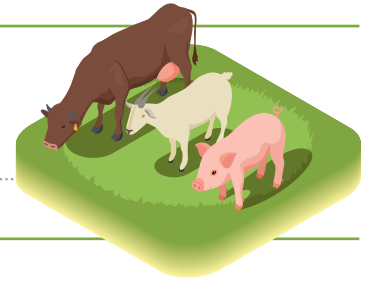




CONTENTS

	Cat. No.	Product Name	Page
Ruminant	PM-FMD-16	VDRG® FMDV 3Diff/PAN Ag Rapid kit	01 - 02
	PM-FMD-15	VDRG® FMDV PAN Ag Rapid kit	03
	PB-BRU-11	VDRG® Bovine Brucella Ab Rapid kit	04
	PB-BLV-11	VDRG® BLV Ab Rapid kit	05
	PB-BD5-11	VDRG® BoviDia 5 Ag Rapid kit	06
Swine	PS-ASF-11	VDRF® ASFV Ag Rapid kit	07 - 08
	PS-PED-11	VDRG® PEDV Ag Rapid kit	9
	PS-TGE-11	VDRG® TGEV Ag Rapid kit	10
	PS-ROT-11	VDRG® ROTA Ag Rapid kit	11
Poultry	PP-AIV-12	VDRG® AIV Ag Rapid kit 2.0	12

VDRG® FMDV 3Diff/PAN Ag Rapid Kit



Foot and Mouth Disease Virus

Foot-and-mouth disease virus (FMDV) infects cloven hoofed (two-toed) mammals such as cattle, sheep, goats, pigs and various wildlife species. There are seven types (O, A, C, SAT 1, SAT 2, SAT 3 and Asia1), that are subject to high mutation rates which constantly generate new FMDV variants. Typical cases of FMD are characterized by a vesicular condition of the feet, buccal mucosa and, in females, the mammary glands. This test kit, the diagnostic reagent can detect FMDV specific serotype antigens and FMDV All serotype antigens quickly and simply within 15 minutes after dropping the specimens.

Introduction

- + **Intended use** : FMDV specific serotype antigens detection and FMDV All serotype antigens detection
 - Specific serotypes : O, A, Asia1
 - All serotypes : O, A, C, Asia1, SAT1, SAT2, and SAT3
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Vesicular fluid, Infected tissue, Saliva and cultivated virus etc.
- + **Component**
 - FMDV 3Diff/PAN Ag Rapid Test Device
 - Sample Dilution Buffer
 - Test Tube
 - Swabs
 - Dropper



Features

- + Differential diagnosis of 3 different serotypes (O,A,Asia1) of FMD virus
- + Available Rapid kit at field farm condition
- + Applicable to various suspect specimens (vesicular fluid, infected tissue, saliva, and cultivated virus etc)
- + Concurrent diagnosis both of a virus's common antigen(all 7 serotypes) and serotype-specific antigens (O,A,Asia1)
- + Clinical Sensitivity
 - 1) FMD type O 88.2%(n=60/68) vs PCR
 - 2) FMD type A 100%(n=70), Asia1 100%(n=62), SAT1 100%(n=20), SAT2 100%(n=20), SAT3 100%(n=20), C 100%(n=20), in spiking samples with virus (titer : 1.0x10⁵TCID₅₀/mL or higher)
- + Clinical Specificity
 - 1) type O, type A and strip PAN : normal cattle 100%(n=92), normal pigs 100%(n=400)
 - 2) type Asia1 : normal cattle 100%(n=92), normal pigs 99.5%(n=398/400)

Cross reactivity

Cross reactivity among serotypes of FMDV

VDRG® FMDV 3Diff/PAN Ag Rapid kit				
Serotype	3Diff			PAN
	O	A	Asia1	PAN
O	Positive	Negative	Negative	Positive
A	Negative	Positive	Negative	Positive
Asia1	Negative	Negative	Positive	Positive
SAT1	Negative	Negative	Negative	Positive
SAT2	Negative	Negative	Negative	Positive
SAT3	Negative	Negative	Negative	Positive
C	Negative	Negative	Negative	Positive

Sample preparation

A. Sample collection

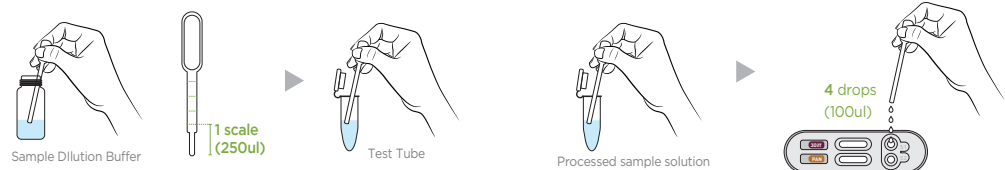
1. Collection of fluid from intact vesicle : draw vesicular fluid with syringe.
2. Collection of fluid from ruptured vesicles : Soak vesicular fluid using a cotton swab.
3. Tissue sampling from ruptured lesions :
 - ① Follow the instruction manual in **VDRG® Tissue Sample Extraction kit** (CAT.NO. EXT-TIS-11, not provided).
 - ② Collect 0.2g of fresh and friable epithelium (nail size of little finger) from surface or margin of vesicles or other tissues of interest.
4. Saliva : Collect saliva from swine or bovine using appropriate method.
 - ① For bovine, collect saliva directly from tongue using disposable plastic gloves.
 - ② For swine, collect saliva using chewing rope or other oral fluid collection kit.
5. Cultured virus : Collect virus culture media using micropipette.

B. Sample processing

1. Syringe-collected fresh vesicular fluid
 - ① Add 1 scale (approximately 250ul) of Sample Dilution Buffer to the test tube using dropper.
 - ② Add 250µl of syringe-collected vesicular fluid to the test tube and mix gently.
2. Swab-collected fluid from ruptured vesicles
 - ① Add 2 scales (approximately 500ul) of Sample Dilution Buffer to the test tube using dropper.
 - ② Soak the swab in the dilution buffer, mix by swirling and extract the vesicular lesion fluid by pressing the cotton swab against the tube wall.
 - ③ Remove the swab from the test tube after extraction.
3. Tissue-extracted fluid
 - ① Follow the instruction manual in **VDRG® Tissue Sample Extraction Kit** (Cat.No. EXT-TIS-11, not provided).
 - ② Add 4 scales (1mL) of Sample Dilution Buffer to the extraction vial.
 - ③ Add tissue sample to the extraction vial.
 - ④ Cut the tissue into pieces using scissors and grind using pestle and sand included in the kit.
 - ⑤ Leave the homogenate for 2-3 minutes to settle down tissue fraction.
 - ⑥ Use the clarified fluid for testing.
4. Saliva
 - ① Add 2 scales (approximately 500ul) of Sample Dilution Buffer to the test tube using the dropper.
 - ② Centrifugate (6,000rpm, 10min) the collected saliva and soak the swab with supernatant of centrifugated saliva.
 - ③ Soak the swab in the dilution buffer, mix by swirling and extract the saliva by pressing the cotton swab against the tube wall.
 - ④ Remove the swab from the test tube after extraction.
 - ⑤ Use the diluted and clarified saliva for testing.
5. Virus culture media
 - ① Add 200ul of Sample Dilution Buffer to the test tube, Eppendorf tube or microplates.
 - ② Add 200ul of virus culture media to the test tube and mix by several times of swirling.

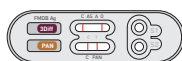
Test procedure

- 1 Add 1-4 scales of Sample Dilution Buffer depending on sample types to Test Tube using Dropper and process the sample.
- 2 Slowly add 4 drops (100 ul) of the processed sample solution to position "S1" and "S2" on the test device using a Dropper or micropipette(not provided).

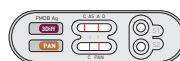


- 3 Read results within **15 minutes** exactly. Reading later than 15 minutes may cause inaccurate results.

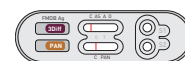
1. Positive when both control and test lines are red.



1) FMDV serotype O positive result

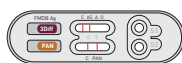


2) FMDV serotype A positive result

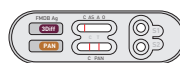


2. Negative when only control lines are red.

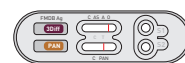
3. Re-test when control line is not visible.



3) FMDV serotype Asia-1 positive result



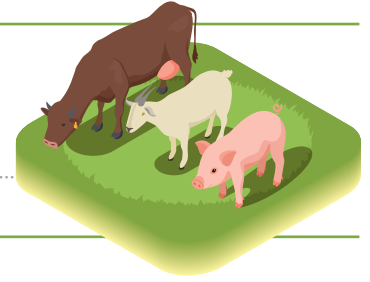
4) FMDV other serotype (SAT1, SAT2, SAT3, C) positive result



Order Information

Cat No.	Product Name	Quantity
PM-FMD-16	VDRG® FMDV 3Diff/PAN Ag Rapid kit	10 Tests/Box

VDRG® FMDV PAN Ag Rapid Kit



General Description

The test kit, the diagnostic reagent can detect FMDV serotype antigen quickly and simply within 15 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of all seven FMDV serotype antigens
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Fluids from unruptured vesicles/apthae and vesicular epithelium from ruptured lesions
- + **Component** - FMDV PAN Ag Rapid Test device
 - Sample Dilution Buffer
 - Test Tube
 - Swab
 - Dropper



Features

- + **Clinical Sensitivity**
 - 1) FMD type O 88.2%(n=60/68) vs PCR
 - 2) type A 100%(n=70), Asia 100%(n=62), SAT 1 100%(n=20), SAT 2 100%(n=20), SAT 3 100%(n=20), C 100%(n=20), in spiking samples with virus (titer : 1.0x10⁵TCID₅₀/ml or higher)
- + **Clinical Specificity**
 - 1) normal cattle 100%(n=92), normal pigs 100%(n=400)

Sample preparation

A. Sample collection

1. Collection of fluid from intact vesicle : draw vesicular fluid with syringe.
2. Collection of fluid from ruptured vesicles : Soak vesicular fluid using a cotton swab.
3. Tissue sampling from ruptured lesions.
 - ① Follow the instruction manual in **VDRG® Tissue Sample Extraction kit** (CAT.NO. EXT-TIS-11, not provided).
 - ② Collect 0.2g of fresh and friable epithelium (size of little finger nail) from surface or margin of vesicles or other tissues of interest.
4. Cultured virus: collect virus culture media using micropipette.

B. Sample processing

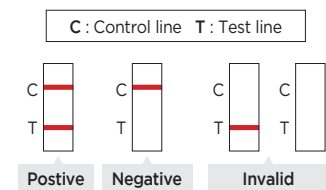
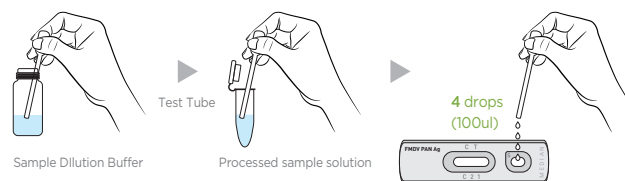
1. Syringe-collected fresh vesicular fluid
 - ① Add 4 drops (approximately 100µl) of Sample Dilution Buffer to the test tube
 - ② Add 100uL of syringe-collected vesicular fluid to the test tube and mix gently.
2. Swab-collected fluid

- ① Add 10 drops (approximately 250µl) of Sample Dilution Buffer to the test tube.
 - ② Soak the swab in the fluid, mix by swirling and extract the vesicular lesion fluid by pressing the cotton bud against the tube wall.
 - ③ Remove the swab from the test tube after extraction.
3. Tissue-extracted fluid
- ① Follow the instruction manual of **VDRG® Tissue Sample Extraction kit** (Cat. No. EXK-FMD-11, not provided).
 - ② Add 40 drops (1ml) of Sample Dilution Buffer to the extraction vial
 - ③ Add tissue sample to the extraction vial
 - ④ Cut the tissue with scissors and grind using pestle and sand included in the kit.
 - ⑤ Leave the homogenate for 2-3 minutes to settle down tissue fraction.
4. Virus culture media
- ① Add 100uL of Sample Dilution Buffer to the test tube, Eppendorf tube or microplates.
 - ② Add 100uL of virus culture media to the test tube and mix by several times of swirling.

Test procedure

- 1 Slowly add 4 drops (100uL) of the processed sample solution to position "S" on the test device using a dropper (provided) or micropipette (not provided).

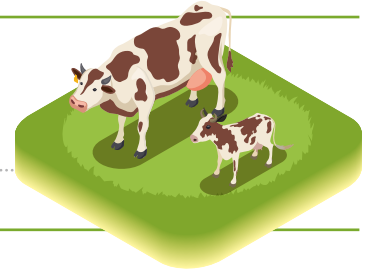
- 2 Read test results after **15 minutes**.



Order Information

Cat No.	Product Name	Quantity
PM-FMD-15	VDRG® FMDV PAN Ag Rapid Kit	10 Tests/Box

VDRG® Bovine Brucella Ab Rapid Kit



Bovine Brucella

Brucellosis is an infectious disease that occurs from contact with animals carrying Brucella bacteria. Brucella can infect cattle, goats, camels, dogs, and pigs. Brucella is highly contagious, spreading very easily between cattle as the calf, the membranes and the uterine fluids all contain large quantities of bacteria. This test kit, the diagnostic reagent can detect bovine brucella antibody quickly and simply within 10 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of Bovine Brucella antibody
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Bovine whole blood, plasma, and serum
- + **Component**
 - Bovine Brucella Ab Rapid device
 - Dilution Buffer
 - Capillary tube

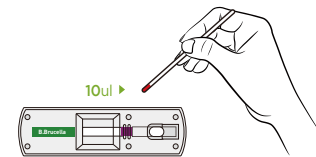
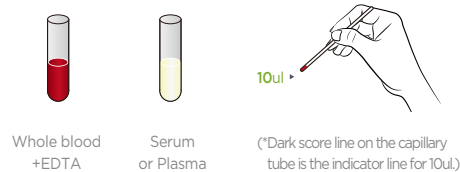


Features

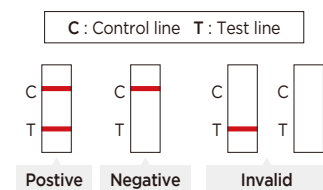
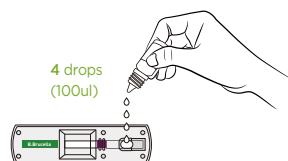
- + Clinical Sensitivity : 100% (n=105) vs Rose-Bengal, TAT, SVANOVIR c-ELISA, MEDIAN ELISA
- + Clinical Specificity : 100% (n=110) vs Rose-Bengal, SVANOVIR c-ELISA, MEDIAN ELISA
- + Analytical Sensitivity : 100% Sensitivity in OIE, USDA Standard Positive Serum (N=9)
- + Analytical Specificity : 100% Specificity in USDA Standard Negative Serum (N=3)
- + No Cross-reaction with other bovine infectious disease (BLV, BHV-1, BRSV, BVD, PI-3)

Test procedure

- 1 Take 10 ul of the sample using capillary tube unto the dark score line on the capillary tube.
- 2 Add 10 ul of the sample into the sample hole.



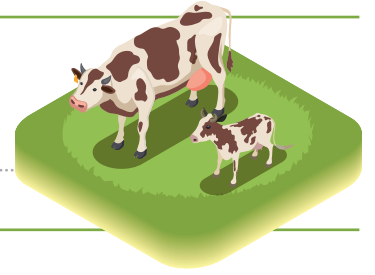
- 3 Add 4 drops (approximately 100ul) of the dilution buffer.
- 4 Read test results after **10 minutes**.



Order Information

Cat No.	Product Name	Quantity
PB-BRU-11	VDRG® Bovine Brucella Ab Rapid Kit	10 Tests/Box

VDRG® BLV Ab Rapid Kit



Bovine Leukemia Virus

Bovine leukemia virus (BLV) is a retrovirus that may cause lymphosarcoma in cattle. The virus resides in blood lymphocytes where circulating antibodies are unable to neutralize it. Therefore, once an animal is infected with BLV, it is infected for life. BLV is economically significant to the producer because of premature culling or death as a result of lymphosarcoma. This test kit, the diagnostic reagent can detect BLV antibody quickly and simply within 10 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of Bovine Leukemia antibody
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Bovine serum
- + **Component**
 - BLV Ab Rapid device
 - Dilution buffer bottle
 - Capillary tube



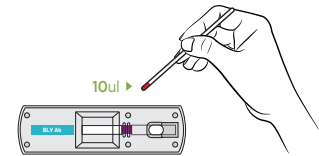
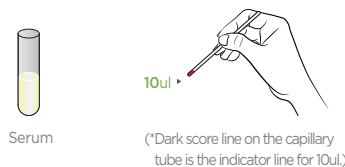
Features

- + Easy test, Ready-to-use reagent
- + Clinical performance vs AGID, commercial Blocking ELISA kit, PCR

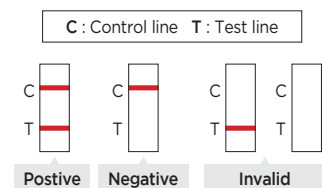
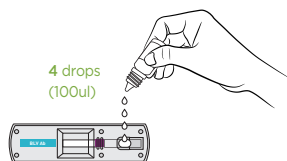
		AGID	Blocking ELISA	PCR
VDRG® BLV Ab Rapid Kit	Sensitivity	100%(100/100)	100%(105/105)	100%(50/50)
	Specificity	95.6%(152/159)	98.7%(152/154)	100%(23/23)

Test procedure

- 1 Take 10 ul of the sample using capillary tube unto the dark score line on the capillary tube.
- 2 Add 10 ul of the sample into the sample hole.



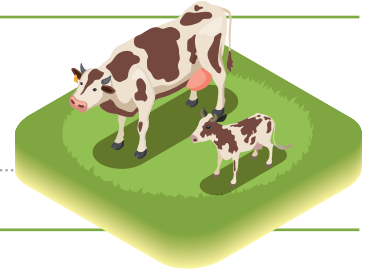
- 3 Add 4 drops (approximately 100ul) of the dilution buffer.
- 4 Read test results after 10-15 minutes.



Order Information

Cat No.	Product Name	Quantity
PB-BLV-11	VDRG® BLV Ab Rapid Kit	10 Tests/Box

VDRG® BoviDia-5 Ag Rapid Kit



Bovine Diarrhea

Bovine Diarrhea is a disease of cattle caused by the Bovine Viral Diarrhea Virus and Escherichia coli. The virus is widespread and most herds are at risk for infection. In the susceptible herd, Bovine Diarrhea can be a serious, costly disease.

This is a diagnostic kit to detect viral (*Coronavirus*, *Rotavirus*), protozoal (*Cryptosporidium parvum*, *Giardia lamblia*), and enteropathogenic *Escherichia coli* (*E. coli* K99) antigen. This test kit, the diagnostic reagent can differential detect each antigens quickly and simply within 10 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of Cryptosporidium, Giardia, Rotavirus, Corona virus and *Escherichia coli* k99 antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Bovine fecal sample, infected intestine, and cultivated bacteria or viruses etc
- + **Component**
 - BoviDia 5 Ag Rapid device
 - Sample dilution buffer
 - Swabs - Dropper cap



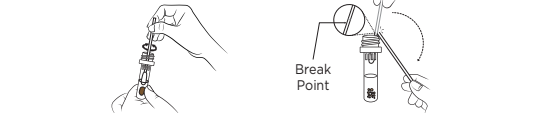
Features

- + Differential diagnosis for 5 different bovine enteric pathogens including coronavirus, rotavirus, cryptosporidium, giardia, and pathogenic *E.coli*
- + Available rapid kit at field farm condition
- + The highest sensitivity and detection limits
- + Applicable to various suspect specimens (ex, fecal sample, infected intestine, and cultivated bacteria or viruses etc)
- + No cross Reactivity with heterogenous pathogens
- + Clinical performance vs real time RT-PCR

Bovi Dia-5	Number of samples (Positive/Negative)	Sensitivity	Specificity
Coronavirus	606 (63/543)	92.1%	97.8%
Rotavirus	706 (286/420)	90.6%	96.2%
Cryptosporidium	606 (45/561)	95.6%	99.6%
Giardia	606 (43/563)	93%	98.9%
<i>E.coli</i> K99	606 (36/570)	91.7%	100%

Test procedure

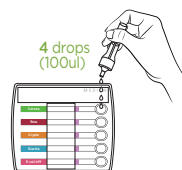
- 1 Swab the feces from the stool or rectums using the sample collection swab.
- 2 Put the sample swab in a tube containing the sample diluent ,mix it 10 times, then cut the groove into the swab and cut off the rod, and let the head of the swab fall into the tube.



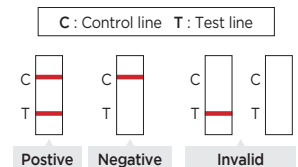
- 3 Attach the dropper cap to the tube containing the sample dilution solution and the cut swab to close it.



- 4 Add 4 drops of specimen to the each five sample hole of BoviDia 5 Ag Rapid device.



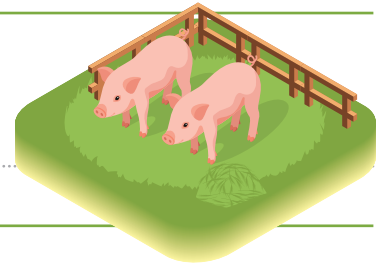
- 5 Read test results after 10 minutes.



Order Information

Cat No.	Product Name	Quantity
PB-BD5-11	VDRG® BoviDia 5 Ag Rapid Kit	10 Tests/Box

VDRF[®] ASFV Ag Rapid Kit



African Swine Fever Virus

African Swine Fever (ASF) is a highly contagious viral disease of suids with severe hemorrhagic fever and high lethality. ASFV is a large (175-215nm), lipoprotein-enveloped, icosahedral ds DNA virus and belongs to a member of Genus Asfivirus Family Asfviridae. ASF virus are classified into 22 genotypes based on p72 gene, but only 2 genotype viruses are active out of Africa. This test kit is the diagnostic reagent that can detect ASFV antigens quickly and simply within 15minutes after infection of samples.

Introduction

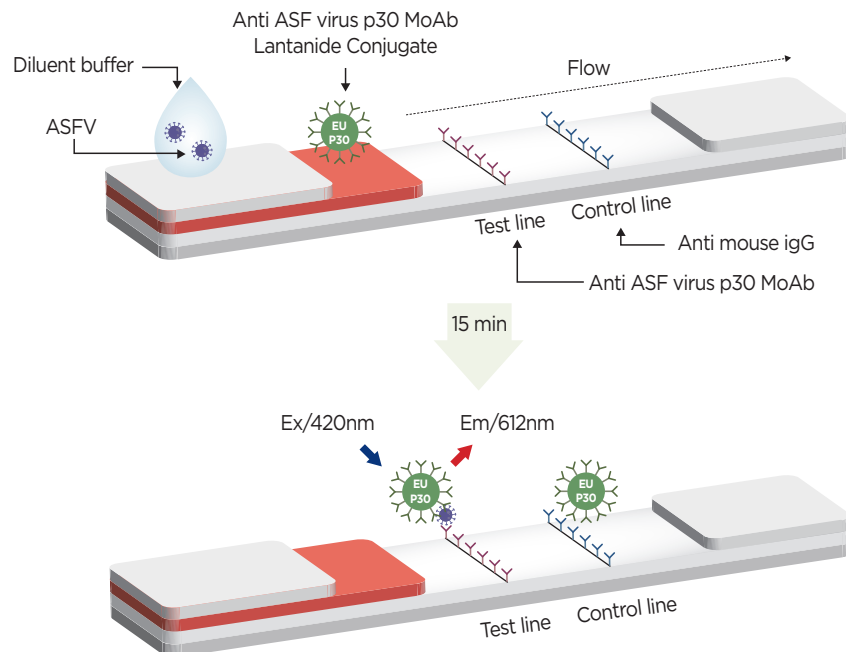
- + **Intended use** : Detection of African Swine Fever virus antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Swine whole blood
- + **Component**
 - ASFV Ag Rapid device
 - Dropper
 - Sample dilution buffer
 - VDRF[®] Reader



VDRF[®] Reader is a highly sensitive fluorescence analyzer that connects via Bluetooth to your smart phone app. After entering the sample name on the smart phone, tap or click the detect button to send a command to measure the immune complex by the antigen and antibody reaction using a light source device. The measured fluorescence signal is converted into an electric signal and sent to the smart phone and output as a reading value.

Basic principle of

VDRF[®] ASFV Ag Rapid Kit



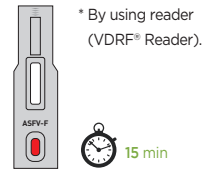
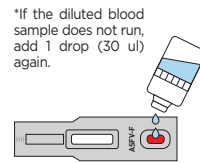
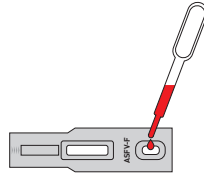
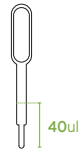
Test procedure

At first, Cloud Application (App) should be installed in the Smart phone according to instruction manual of VDRF[®] Reader because the reader is operated by Cloud App. The result of VDRF[®] test can be checked only by the reader.

Test Procedure (using Dropper Cap)

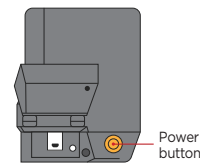
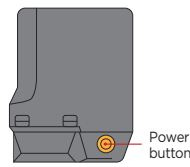
* Fresh blood sample (collected within 3 days) should be used for the test. If the sample aged, the blood sample become sticky and may lead to non-specific reaction).

- 1 Collect whole blood sample to the scale by using dropper (40ul).
- 2 Drop the blood (40ul) onto the sample hole of the device first.
- 3 After 1-3 minutes, add 2 drops (60ul) of dilution buffer.
*If the diluted blood sample does not run, add 1 drop (30 ul) again.
- 4 Read test results after 15 minutes.



Result Reading (15 min after sample dropping)

- 1 Turn on Bluetooth and start the cloud detection app.
- 2 Turn on the Reader (VDRF[®] Reader).
- 3 Open the cover, insert the device until it clicks and close the cover.
- 4 Recognize the kit #lot, fill in the sample name and tap detect to read the result.



Interpretation

Result reading & Interpretation

Reading value	Decision
< 16	Negative
16 - 49	Suspect
≥ 50	Positive

Precautions during test & Interpretation

- ▶ At least 10 heads of pigs should be tested by ASFV Ag rapid kit.
- ▶ If decided positive, the sample should be tested again by new device.
- ▶ If decided suspect, the pig should be tested again 2 or 3 days later.
- ▶ This result should be confirmed by ASFV real time PCR.

Performance

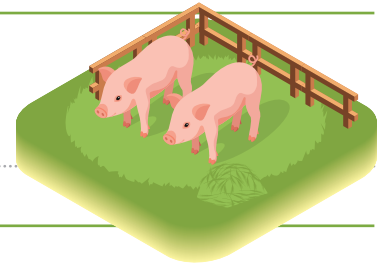
VDRF[®] ASFV Ag Rapid Kit

Performance	
Clinical Sensitivity (vs ASFV qPCR)	By individual : 79.4% (n=136) By farm : 100% (n=15)
Clinical Specificity (vs ASFV qPCR)	By individual : 99.9% (n=903) By farm : 97.7% (n=44)
Analytical Sensitivity (Limit of Detection, LoD)	0.56 ug/mL of recombinant protein p30 100% of sensitivity based on qPCR Ct value 23
Analytical Specificity (Cross reaction test)	0% with 10 kinds of porcine viruses (CSFV, PPV, JEC, PCV2, TGEV, PEDV, PRRSV EU, PRRSV NA, SIV H1N1, SIV H3N2)

Order Information

Cat No.	Product Name	Quantity
PS-ASF-11	VDRF [®] ASFV Ag Rapid Kit	30 Tests/Box
PS-ASF-15	VDRF [®] Reader	1 Reader

VDRG® PEDV Ag Rapid Kit



Porcine Epidemic Diarrhea Virus

Porcine Epidemic Diarrhea Virus (PEDV) is an RNA virus belonging to corona virus. If acutely infected with PEDV, it is characterized by inducing vomiting and watery diarrhea regardless of the age of swine. Although the death rate is low as 1-3% range by recovering within one week after infection in case of grown swine, the death rate is 50% in case of piglets and may be 100% in severe cases. This test kit, the diagnostic reagent can detect PEDV antigens quickly and simply within 10 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of Porcine Epidemic Diarrhea Virus antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Porcine diarrhea feces
- + **Component**
 - PEDV Ag Rapid device
 - Sample dilution buffer
 - Swabs
 - Dropper

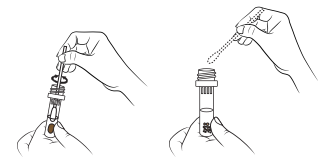
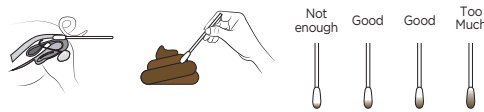


Features

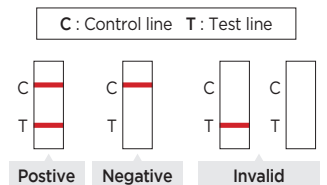
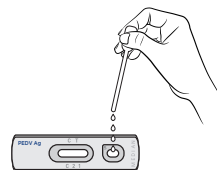
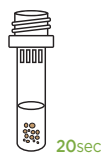
- + Easy test, Ready-to-use reagent
- + High correlation with RT-PCR and a high reproducibility and accuracy.
- + Clinical sensitivity : 98.3% (228/232) vs RT-PCR
- + Clinical specificity : 98.6% (276/280) vs RT-PCR
- + No cross-reaction with other viruses

Test procedure

- 1 Collect a diarrhea specimen from diarrhea feces or those in the anus using swabs for fecal specimen collection.
- 2 Put the specimen into the container that contains sample dilution buffer and stir well the solution with a swab in order to extract the virus from the fecal specimen thoroughly.



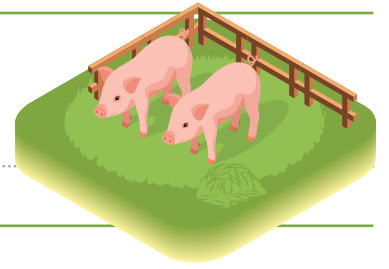
- 3 Place the tube upright until the large particles go down.(20sec.)
- 4 Take the supernatant of specimen solution using dropper, and then instill 4 drops into the test device.
- 5 Read test results after 10 minutes.



Order Information

Cat No.	Product Name	Quantity
PS-PED-11	VDRG® PEDV Ag Rapid Kit	10 Tests/Box, 40 Tests/Box

VDRG® TGEV Ag Rapid Kit



Transmissible GastroEnteritis Virus

Transmissible gastroenteritis (TGE) is a highly contagious infection of swine caused by TGE Coronavirus (TGEV). TGEV infection is followed by a very high mortality rate (up to 100%) in piglets less than two weeks old. This test kit, the diagnostic reagent can detect TGEV antigens quickly and simply within 10 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of Porcine Transmissible Gastroenteritis Virus antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Porcine diarrhea feces
- + **Component**
 - TGEV Ag Rapid device
 - Sample dilution buffer
 - Swabs
 - Dropper



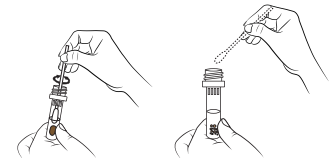
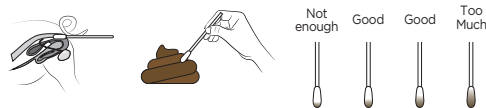
Features

- + Easy test, Ready-to-use reagent
- + High correlation with RT-PCR, High reproducibility
- + Clinical sensitivity : 100% (400/400) vs RT-PCR
- + LoD(Limit of Detection) comparison data between competitor's kit and VDRG® TGEV Rapid Kit

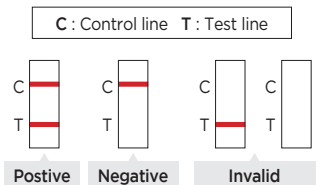
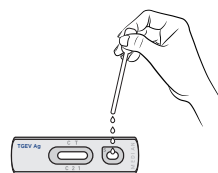
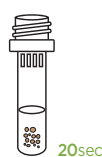
Specimens	TCID ₅₀ /mL	Competitor's TGEV Ag Rapid Kit	VDRG® TGEV Ag Rapid Kit
Standard sample 1	10 ⁴	Positive	Positive
Standard sample 2	10 ³	Negative	Positive
Standard sample 3	10 ²	Negative	Positive

Test procedure

- 1 Collect a diarrhea specimen from diarrhea feces or those in the anus using swabs for fecal specimen collection.
- 2 Put the specimen into the container that contains sample dilution buffer and stir well the solution with a swab in order to extract the virus from the fecal specimen thoroughly.



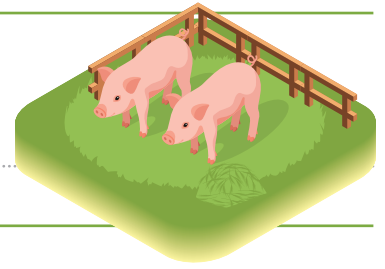
- 3 Place the tube upright until the large particles go down.(20sec.)
- 4 Take the supernatant of specimen solution using dropper, and then instill 4 drops into the test device.
- 5 Read test results after 10 minutes.



Order Information

Cat No.	Product Name	Quantity
PS-TGE-11	VDRG® TGEV Ag Rapid Kit	10 Tests/Box

VDRG[®] ROTA Ag Rapid Kit



Rotavirus

Rota virus is an RNA virus with size of 80nm belonging to Reo virus. After being discovered for the first time in 1973, it occurs throughout the year as it is persistent in pig farms for the most part. Although the infection rate is high, the death rate is low (7-20%). It is characterized by diarrhea symptoms in three week old weaning pigs for the most part.

This test kit, the diagnostic reagent can detect Rota virus antigens quickly and simply within 10 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of Rota virus, group A antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Porcine diarrhea feces
- + **Component**
 - Rota Ag Rapid device
 - Sample dilution buffer
 - Swabs
 - Dropper

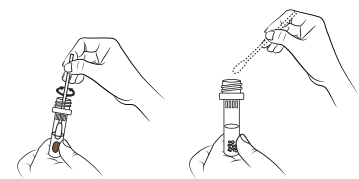


Features

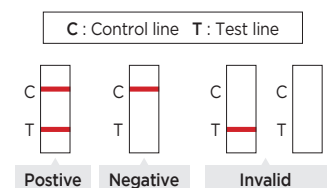
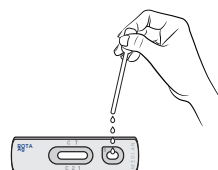
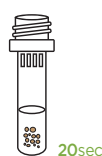
- + Easy test, Ready-to-use reagent
- + High correlation with RT-PCR and a high reproducibility and accuracy.
- + Clinical sensitivity : 93.2% (272/292) vs RT-PCR
- + Clinical specificity : 99.1% (420/428) vs RT-PCR
- + No cross reaction with other viruses

Test procedure

- 1 Collect a diarrhea specimen from diarrhea feces or those in the anus using swabs for fecal specimen collection.
- 2 Put the specimen into the container that contains sample dilution buffer and stir well the solution with a swab in order to extract the virus from the fecal specimen thoroughly.



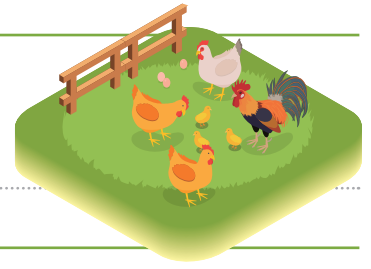
- 3 Place the tube upright until the large particles go down.(20sec.)
- 4 Take the supernatant of specimen using dropper, and then instill 4 drops into the test device.
- 5 Read test results after **10 minutes**.



Order Information

Cat No.	Product Name	Quantity
PS-ROT-11	VDRG [®] ROTA Ag Rapid Kit	10 Tests/Box

VDRG® AIV Ag Rapid kit 2.0



Avian Influenza Virus

Avian influenza refers to the disease caused by infection with avian (bird) influenza (flu) Type A viruses. Infected birds shed avian influenza virus in their saliva, mucous and feces. Although avian influenza A viruses usually do not infect people, rare cases of human infection with these viruses have been reported. This test kit, the diagnostic reagent can detect AIV antigens quickly and simply within 15 minutes after dropping the samples.

Introduction

- + **Intended use** : Detection of various subtypes of Avian influenza virus antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Avian stool or rectums
- + **Component**
 - AIV Ag Rapid device
 - Sample dilution buffer
 - Swabs
 - Dropper Cap



Features

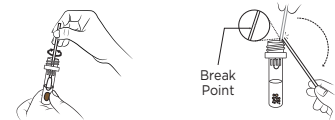
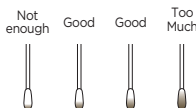
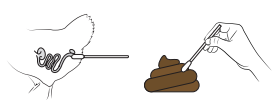
- + Clinical Sensitivity : 100% when the sample contained more than $10^{4.0}$ EID₅₀/mL (vs PCR)
- + Clinical Specificity : 99.5%
- + Detection of various subtypes of influenza virus
- + Available at field farm condition
- + Applicable both to highly pathogenic and low pathogenic avian influenza viruses
- + Cost effective diagnostic tool
- + Reliable quality based on AI technical revolution ver 2.0 and guaranteed by ISO9001:2015

Detection Limit

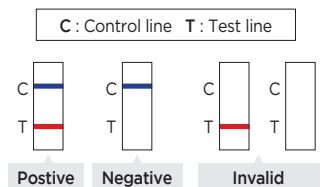
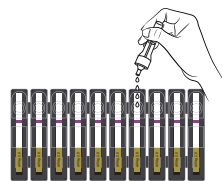
Serotype	Detection Limit	Evaluated at.
A/wild bird feces/Korea/KU-VI092474/2009[H5N2]	$1 \times 10^{4.3}$	Korea Univ.
A/Baikal teal/Korea/2406/2014[H5N8]	$0.5 \times 10^{3.0}$	
A/Madarin_duck/Korea/K16-187-3/2016[H5N6]	$0.5 \times 10^{3.0}$	Konkuk Univ.
A/duck/Korea/ES2/2016[H5N6]	$1 \times 10^{4.0}$	

Test procedure

- 1 Swab the feces from the stool or rectums using swabs.
- 2 Put the sample swab in a tube containing the sample diluent ,mix it 10 times, then cut the groove into the swab and cut off the rod, and let the head of the swab fall into the tube.

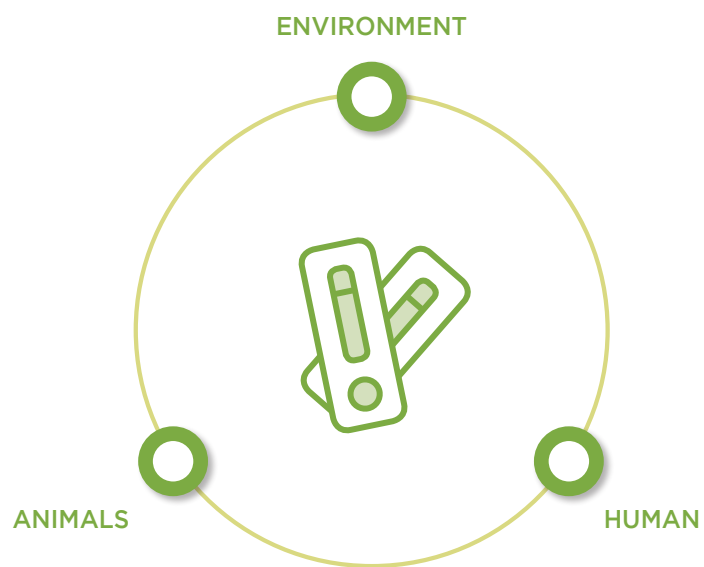


- 3 Attach the dropper cap to the tube containing the sample dilution solution and the cut swab to close it.
- 4 Add 4 drops of specimen to the sample hole of AIV Ag Rapid device.
- 5 Read test results after **15 minutes**.



Order Information

Cat No.	Product Name	Quantity
PP-AIV-12	VDRG® AIV Ag Rapid Kit 2.0	30 Tests/Box



"For One Health"