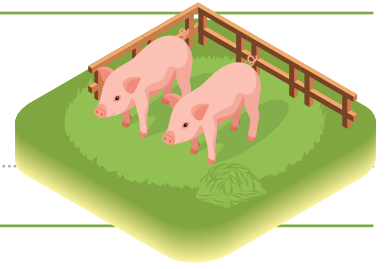


VDRF® ASFV Ag Rapid Kit



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 15 minutes after infection of samples.

Introduction

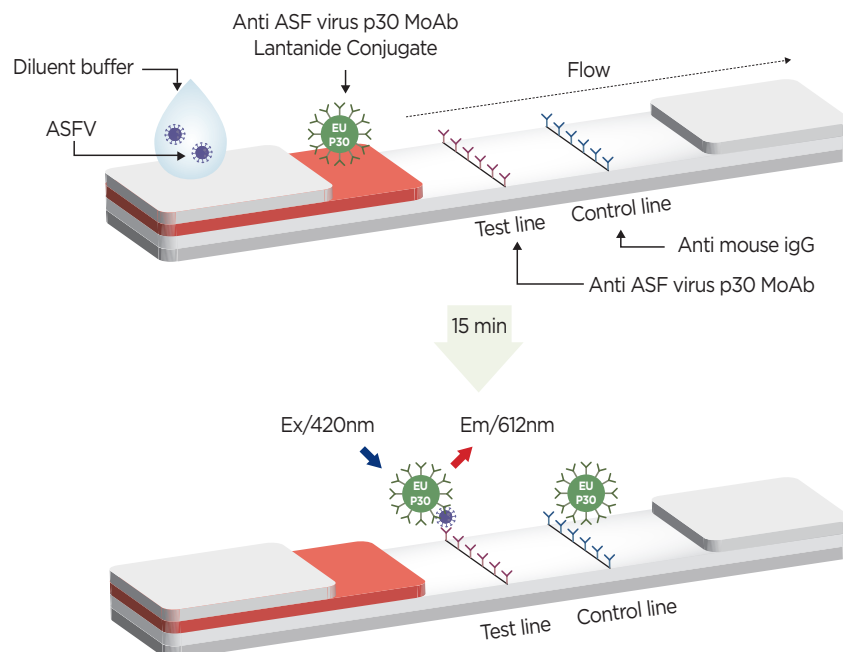
- + **Intended use** : Detection of African Swine Fever virus antigen
- + **Principle** : Immunochromatographic assay
- + **Specimen** : Swine whole blood
- + **Component**
 - ASFV Ag Rapid device
 - Dropper
 - Sample dilution buffer
 - VDRF® Reader



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



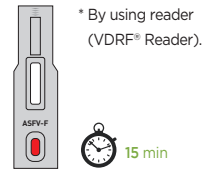
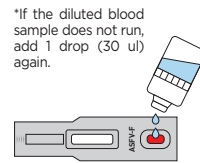
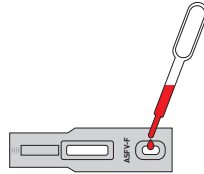
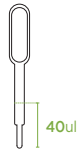
Test procedure

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)

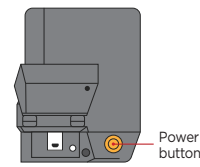
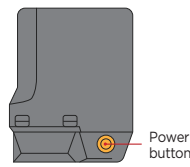
* Fresh blood sample (collected within 3 days) should be used for the test. If the sample aged, the blood sample become sticky and may lead to non-specific reaction).

- 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