# RAPID ASFV Ag

On-site Testing
For the control of ASF



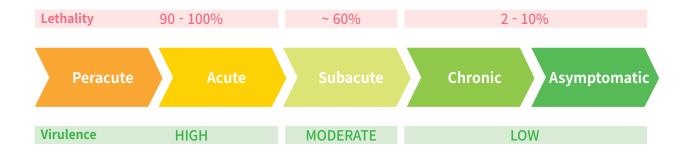
Bionote Rapid ASFV Ag Test Kit



# African Swine Fever (ASF)

African Swine Fever (ASF) is a highly contagious hemorrhagic disease of pigs. With high virulence forms of the virus, ASF is characterized by high fever, red blotchy skin lesions and death in 2-10 days on average. Mortality rates may be as high as 100%. ASF is a devastating disease that would have a significant impact on livestock producers and the economy. Unfortunately, there is no treatment or vaccine available for this disease. The only way to control this disease is to depopulate all exposed swine herds by detecting ASFV antigens rapidly.

# What are the Clinical Forms of ASF?



# **How is ASFV Transmitted?**





- Sudden death
- Fever
- Lethargy
- Loss of appetite
- Bleeding from the nose or rectum
- Skin Erythema
- Respiratory distress
- Abortion

p32

### **Expressed with Early kinetics**

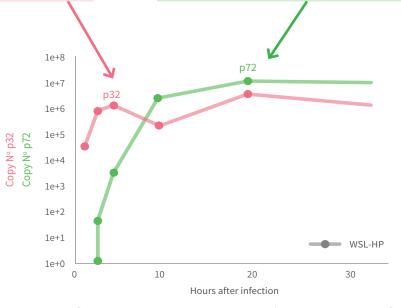
Expression of p32 indicates that early virus gene expression has started. (2 to 4 hours post-infection)

**p72** 

### **Expressed with Late kinetics**

Expression of p72 indicates that the viral capsid is formed in late stage expression of virus infection.





[In-vitro expression kinetics of OURT 88/3 proteins p32 and p72]

### **Feature**

- On-site rapid testing within 20 minutes
- Easy-To-Use All types of blood samples available (Whole blood, Plasma, Serum)
- No Cross-Reactions

No Cross-Reactivity with other viruses (CSF virus, Rotavirus, PED virus, Adenovirus, Norovirus) Outstanding Sensitivity

Making an accurate diagnosis by targeting both p32 and p72 major proteins

 Excellent Specificity 100% Specificity when tested in a ASF non-outbreak region

#### References

- U.S. Department of Agriculture, The Foreign Animal Disease Preparedness and Response Plan (FAD PReP)—Disease Response Strategy: African Swine Fever (2019)
- World Organisation for Animal Health (OIE), African swine fever
- Rock DL: Challenges for African swine fever vaccine development-"... perhaps the end of the beginning.". Vet Microbiol. 2017 Jul;206:52-58.

  D Beltran-Alcrudo, M Arias, C Gallardo, SA Kramer, ML Penrith: African Swine Fever: Detection and Diagnosis: a Manual for Veterinarians. Food and Agriculture Organization of the United Nations
- Catharina Keßler, Jan H. Forth, Günther M. Keil, et al.: The intracellular proteome of African swine fever virus. Scientific Reports. 2018; 8(1), 14714.
- Ning Jia, Yunwen Ou, Zygmunt Pejsak, Yongguang Zhang, Jie Zhang. Roles of African Swine Fever Virus Structural Proteins in Viral Infection. J Vet Res. 2017 Juni 61(2): 135-143.
- Qi Liu, Bingting Ma, Nianchao Qian, Fan Zhang, Xu Tan, Jianlin Lei, Ye Xiang: Structure of the African swine fever virus major capsid protein p72. Cell Research volume 29, pages953–955(2019)
- García-Escudero R, Andrés G, Almazán F, Viñuela E.: Inducible gene expression from African swine fever virus recombinants: analysis of the major capsid protein p72. J Virol. 1998 Apr;72(4):3185-95.

# **Bionote ASFV Ag Test Kit**

### **Specifications**

• Species: Swine

• Target: ASFV p32, p72 proteins

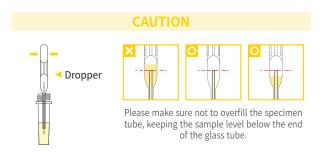
• Specimen: Serum, Plasma, Whole blood

Specimen volume: 100 μl
Testing time: 20 minutes



The detection of p32 and p72 proteins could improve sensitivity of diagnosis of ASFV, enabling surveillance and control of African Swine Fever

### **Procedure**



- ※ Please refer to the instruction manual included in kit for detailed information and limitations of procedures.
- Following use, all devices and materials must be disposed of in a waste bag(provided).











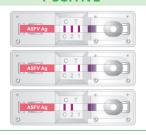
### **SERUM / PLASMA**



### POSITIVE

### **NEGATIVE**

#### INVALID (RETESTING RECOMMENDED)









## **Ordering Information**

Product Name	Cat. No	Product Type	Packing Type	Specimen
Rapid ASFV Ag	RG14017DD	Device	10 Tests/Kit	Serum, Plasma, Whole blood