

Freeze-dried real time PCR test

# **CONTEXT OF AFRICAN SWINE FEVER DIAGNOSIS**

African Swine Fever Virus (ASFV) is a highly contagious DNA virus also causing high mortality in domestic pigs. ASFV is usually asymptomatic in its natural wild suids and arthropod vectors hosts. The infection of ASFV in its reservoir hosts is usually asymptomatic. In contrast, infection of domestic pigs lead to a lethal hemorrhagic fever for which no effective vaccine exists. Since its reintroduction from Ukraine and Poland, new outbreaks have been notified in Europe (Poland, Belgium, Germany) and in other area like China and Latin America. As they can present similar symptoms, a rapid identification of any Swine Fever is of great importance to the pig industry.

#### The new Animal Health Law (AHL) UE 2016/429

The implementing regulation (EU) 2018/1882 implements the LSA for the classification of regulated diseases from April 21, 2021 and classifies swine fever in category A.

The African Swine Fever is thus listed among the 19 diseases in this category which are considered to present a considerable risk in Europe and for which diagnostic and eradication measures should be put in place as soon as they appear.

PCR is the most sensitive and rapid reference method for the detection of African Swine Fever and is now available in freeze-dried form with the new ADIALYO<sup>™</sup> range.

# **REDUCING OUR ENVIRONMENTAL FOOTPRINT WITH** THE ADIALYO<sup>™</sup> RANGE

- Safe and easy handling and shipment at room temperature
- No more dry ice or polystyrene
- Less energetic costs for shipment or storage
- Large presentations for large scale PCR testing worldwide



**ADIALYO<sup>™</sup> ASFV TRIPLEX** 

First African Swine Fever Freeze-dried PCR test

Contraint-free shipping

Environnement-friendly products



Stable at +4°C

≪ ADIALYO™ ASFV Triplex establish a new benchmark for RAPID detection of African Swine Fever in PCR on a planetary scale. »

Don't choose between performance

and simplicity



ADL55Y2\_ASFV-Triplex\_PP01\_(EN)\_V01

24/10/2024

Smart solutions for sharp decisions

# CHARACTERISTICS FOR ADIALYO<sup>TM</sup> ASFV TRIPLEX

## Triplex kit ready to use:

#### ASFV (FAM)

- Internal control of extraction and amplification specific from an endogenous nucleic acid (HEX or equivalent) specific pig and wild boar
- Internal control of extraction and/or amplification specific from an exogenous (Cy5 or equivalent)
- Storage 24 months at +2/8°C freeze-dried

## Easy to use:

- Easy preparation
- Ready to use after rehydration
- Storage 24 months at <-15°C after use
- Stable up to 3 freeze-thaw cycles
- Large presentation (100 or 1000 reactions)

### Quick and reliable method:

- Validated with reference extraction methods including ADIAMAG<sup>™</sup>
- Quick run time (60 min) for amplification of both DNA and RNA virus
- Simultaneous PCR program possible with ADIALYO range
- High specificity and sensitivity & high repetability and reproducibility
- Low PCR detection limit
- Internal control included
- Robust agreement with WOAH-UPL real time PCR

## **RESULTS INTERPRETATION**

Amplification			Interpretation	
FAM (ASFV)	Cy5 (EPC-Ext)	HEX (Endogenous)	ASFV	
Yes	Yes	Yes	Detected	
Yes	No	Yes	Detected	
Yes	Yes	No	Detected	
Yes	No	No	Detected	
No	Yes	Yes	Not detected	
No	No	Yes	Undetermined <sup>1</sup>	
No	Yes	No	Not detected for acellular matrix	
			Undetermined <sup>2</sup>	
No	No	No	Undetermined <sup>3</sup>	

ADIALYO<sup>™</sup> ASFV TRIPLEX detects African Swine Fever virus from pig and wild boar samples.

Sample	Individual analysis	Pool of sample*, possible up to
EDTA blood, serum, plasma, or cell culture supernatant	$\checkmark$	20
Tissue (spleen, tonsil, ganglion, kidney, liver)	$\checkmark$	10
Swab from blood or exudate	$\checkmark$	×
Bone marrow	$\checkmark$	×
Environmental sample	$\checkmark$	×

\*Depending on the epidemiological case and on the quality of samples.

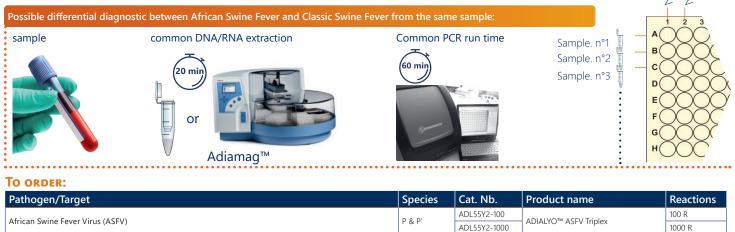
#### Strains detected by the inclusivity study on ASFV genotypes (CISA-INIA):

Identification	Date	Country	Genotype	
E70	1970	Spain	1	
Maur08/01	2008	Mauritius	11	
Ukr12/Zapo	2012	Ukraine		
RSA/2008/1	2008	South Africa		
RSA/W/1/99	1999	South Africa	IV	
Moz64	1964	Mozambique	V	
SPEC/265	1994	Mozambique	VI	
RSA/03/7	2003	South Africa	VII	
MwLil20/1	1990	Malawi	VIII	
Ken06.Bus	2006	Kenya	IX	
BUR90/1	1990	Burundi	Х	
KAB6/2	1983	Zambia	XI	
MZI92/1	1992	Malawi	XII	
SUM14/11	1983	Zambia	XIII	
NYA1/2	1988	Zambia	XIV	
TAN/2008/1	2008	Tanzania	XV	
TAN2003/2	2003	Tanzania	XVI	
NAM/P/1/95	1995	Namibie	XVII	
SPEC125	1987	South Africa	XIX	
24823	1975	South Africa	XX	
SPEC53	1985	South Africa	XXI	
RSA2008/2	2008	South Africa	XXII	
ET13/1505	2013	Ethiopia	XXIII	

Nucleic acids extraction and amplification are valid for each sample if at least one typical amplification curve is observed in FAM, Cy5 and/or HEX or equivalent.

«Undetermined» : no characteristic amplification curve for critical controls. Possible causes:

- <sup>1</sup> Extraction issue and/or PCR inhibition.
- <sup>2</sup> Sample forgotten or degraded during extraction
- <sup>3</sup> Potential PCR error/inhibition or error during the extraction



African Swine Fever Virus (ASFV)		ADL55Y2-100	ADIALYO™ ASFV Triplex	100 R
	P & P'	ADL55Y2-1000	ADIALYO ASPV Inplex	1000 R
Classical Swine Fever Virus (CSFV)	P & P'	ADL22Y1-100	ADIALYO™ CSFV	100 R
Supplier reference material for method adoption that can also be used as a sentinel		ADC55EPC	Extraction Positive Control ASFV	40 R
Confirmation of performances - LDpcr of kit		ADC55LD	LDpcr Positive control ASFV	40 R
Margantia handa DNIA (DNIA autoritica	-	NADI003	ADIAMAG™	200 R
Magnetic beads DNA/RNA extraction		NADI003-XL		800 R

A : Aviaire, B : Bovin, E : Equin, G : Chèvre, P : Porcin, P' : Sanglier, S : Mout



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