

# Adia<sup>X</sup> - BVDV real time Vet

ADI105-BVD\_PP01\_(EN)\_V01  
06/10/2022

*New PCR Methods validated  
for BVD virus detection*

## CONTEXT OF BOVINE VIRUS DIARRHEA DIAGNOSTIC

**ADIAVET™ BVDV Real Time** enable detection of bovine viral diarrhoea virus (BVDV) and border disease virus (BDV) on whole blood, serum, tissue and milk samples from cattle, sheep, goats, and wild deer using real-time enzymatic amplification.

Screening for PI (Permanently Infected) calves from ear notch samples is also now a well established procedure in RT-PCR.

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

Commission Delegated Regulation (EU) 2020/689 of 17 December 2019 establishes minimum preventive measures for the control and early detection diseases, Bovine Viral Diarrhoea is classified as a **category C** diseases for cattle (diseases to be detected in order to avoid spreading); (RE 2020/2002 annexe III, section 6 for BVD diagnostic); (the FLI registration covers only cattle and not small ruminants).

## VALIDATION FOR BIO-X DIAGNOSTICS BVD PCR METHODS

### Reliable and validated methods on *serum samples*

227 sera from 5 laboratories, for 3 extraction methods\* (manual and automated with magnetic beads) :

- 111 positive sera (including 42 younger animals less than 3 month old)
- 116 negative sera (including 20 younger animals less than 3 month old)
- Sensitivity 100 %
- Specificity 100 %
- Pools of serum from 2 to 50 (cf national registration for the pool size)
- LoD<sub>methods</sub> : 10<sup>2.2</sup> TCID<sub>50</sub>/ml



ANSES  
validation

(\* ADIAMAG, QIAamp Viral RNA, NucleoSpin RNA/96 virus)

### PERFORMANCE



LoD<sub>methods</sub> : 10<sup>2.2</sup> TCID<sub>50</sub>/ml

### Reliable and validated methods on *ear notches samples*

190 ear notches, 3 extraction methods with 5 different kits\* (manual, direct lysis, automated with magnetic beads) :

- 95 positive ear notches from IPI calves
- 95 negative ear notches from negative calves
- Sensitivity 100 %
- Specificity 100 %
- Pools of ear notches from 2 to 25 !
- LoD<sub>methods</sub> : 10<sup>2.2</sup> TCID<sub>50</sub>/ml

(\* ADIAMAG™, ADIAPURE™ TLB, QIAamp Viral RNA, RN easy, NucleoSpin RNA/96 virus)

« The new Bio-X Diagnostics protocols deliver quick and reliable BVD PCR results in compliance with AHL and the new standard of calves' ear notches matrix. »

## NEW BVD HEATLYSE SYSTEM FOR A DIRECT LYSIS PROTOCOL ON EAR NOTCHES :

- Integrated unit for BVDV direct lysis protocol.
- Compatible with AllFlex BVD ear notches.



## NEW VALIDATION WITH ADIAPURE™ TLB ON EAR NOTCHES FOR 3 BIO-X PROTOCOLS

	CLASSIC LYSIS protocol	FAST LYSIS protocol <span style="color: blue; font-weight: bold;">NEW</span>	EASY LYSIS protocol <span style="color: blue; font-weight: bold;">NEW</span>
<b>Preparation</b>	1 ear notch+ 280 µl buffer L1TLB + 20 µl buffer L2 TLB		
<b>Incubations</b>	1 <sup>st</sup> : 20 min. +65°C	1 <sup>st</sup> : 8 min. +65°C	10 min. +95°C <i>Only ONE heating bloc</i>
	2 <sup>nd</sup> : 15 min. +95°C	<i>same incubation time</i> 2 <sup>nd</sup> : 8 min. +95°C	
<b>Amplification</b>	5 µl ARN extract and 1h15 with ADIAVET™ BVD Real Time		

ANSES validation

## NEW IMPROVEMENTS FOR BVD VIRUS DETECTION FROM EAR NOTCHES OF IPI CALVES

FAST LYSIS and EASY LYSIS : 2 new convenient and validated protocols

- Quick Lysis protocols: incubation time divided by 2
- Simplified individual recontrol (RNA extract stable 24 H at 4°C)
- Easy tubes transfer from 65°C to 95°C
- Easy storage of 4 sets of 96 tubes
- Insulated handle and reusable Material

« Easy to use for analysis flows in a context of unknown prevalence. »

### TO PLACE AN ORDER :

Code	Description	Nb. of reactions
NQBD2-EU	GRANT dry heating unit	/
N96Bloc05ML	Removable AllFlex BVD heat block	/
N96TPACK	AllFlex BVD 4x96 grippable sockets	/
ADIADP10E1-100 & -400	ADIAPURE™ TLB	100 R & 400 R
ADI105-100 & -500	ADIAVET™ BVDV REAL TIME	100 R & 500 R
NADI003	ADIAMAG™ (magnetic beads extraction kit)	200 R



Smart solutions for sharp decisions

Contact us  
 f.bernard@biox.com  
 +32 (0) 84 32 23 77  
 www.biox.com