



# VetMAX PRRSV EU & NA Kit

A validated kit that detects and differentiates RNA from European (EU) and North American (NA) strains of porcine reproductive and respiratory syndrome virus (PRRSV)

## Benefits

### PCR advantage

PRRSV is endemic in pigs and causes significant losses in the swine industry due to reproductive disorders, respiratory conditions, and growth retardation. PRRSV can be detected in blood and semen for 24–48 hours after infection. Real-time PCR is the most sensitive method for monitoring RNA amplification.

### Confidence in results

- Extensive validation on field samples of different origins with a high variety of EU and NA strains
- Registration in Spain
- Validation according to standard AFNOR NF U47-600

### Flexibility and cost efficiency

- One kit for all matrices
- Easily automated for high-throughput process
- Simple, fast workflow (<3 hours) minimizes sample handling and helps reduce sample cross-contamination

### Convenience

- Ready-to-use PCR mix and enzyme, internal and external controls

## Performance

- RT-qPCR efficiency of EU and NA target is between 96.6% and 100%
- Limit of detection ( $LOD_{PCR}$ ) on EU and NA targets of PRRSV is 9 copies of nucleic acid/RT-qPCR
- $LOD_{PCR}$  for dual infection (NA + EU) on NA target is 18 copies of nucleic acid/RT-qPCR
- $LOD_{PCR}$  for dual infection (NA + EU) on EU target is 9 copies of nucleic acid/RT-qPCR

## Performance studies

To evaluate the Applied Biosystems™ VetMAX™ PRRSV EU & NA Kit, several studies have been conducted with laboratories and research institutes in the Netherlands, Germany, Latvia, Poland, France, Spain, and the US.

Over 800 field samples were selected from a variety of swine herds, some of which were infected with the EU or NA PRRSV subtype, some of which were infected by both viruses, and some that were not infected at all.

Matrices	NA-PRRSV	EU-PRRSV	NA/EU-PRRSV	Negative
Blood and/or serum	32	69	2	100
Tissues and/or organs*	9	18	24	9
Oropharyngeal area**	24	35	4	187
Cell culture, strain, and/or vaccine	13	20	11	11
Field sample***	14	101	7	114
<b>Total</b>	<b>92</b>	<b>243</b>	<b>48</b>	<b>421</b>

\* Tonsil, lung, placenta, liver

\*\* Bronchoalveolar washings, oral fluids, swab

\*\*\* Panel of samples (organ, serum, tissue)

## Field study summary results

Sensitivity = 97.13%, specificity = 97.62%

	Status of the sample		
	Positive	Negative	
Response of the method	Positive	372	10
	Negative	11	411
	<b>Total</b>	<b>383</b>	<b>421</b>

## PRRSV

PRRSV is a highly contagious disease found in swine that causes respiratory and influenza-like symptoms as well as fertility problems, abortion, and the birth of runts. The virus has immunosuppressive activity and kills the macrophages inside the lung, in which it replicates. This probably helps compromise pulmonary resistance to other infectious viruses and bacteria. Viral particles are present in all bodily secretions, including nasal secretions, feces, and sperm, as well as in aborted fetal tissue and placenta.

PRRSV is one of the most economically damaging diseases for the swine industry. Reduced reproduction rates and decreased weight gain performance of infected animals may lead to substantial economic damage for farming operations.

## Ordering information

Product	Type	Quantity	Cat. No.
VetMAX PRRSV EU & NA Kit	Real-time PCR	100 tests	PRRSEUNA
<b>Workflow products</b>			
MagMAX Pathogen RNA/DNA Kit	Sample prep	480 preps	4462359
MagMAX CORE Nucleic Acid Purification Kit	Sample prep	100 preps	A32700
MagMAX CORE Nucleic Acid Purification Kit	Sample prep	500 preps	A32702
KingFisher Flex Magnetic Particle Processor with 96 Deep-Well Head	Sample prep	1 instrument	5400630
Applied Biosystems 7500 Fast Real-Time PCR System with Dell Notebook	Analysis	1 instrument	4365464
<b>Related products</b>			
PrioCHECK Porcine PRRSV Ab Strip Kit	ELISA	5-strip plate kit (450 tests)	7610880

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