ViroReal® Kit PEDV

For veterinary use only

ViroReal® Kit PEDV			
Order no.	**Reactions**	**Pathogen**	**Internal positive control**
DVEV01313	100	FAM channel	Cy5 channel
DVEV01353	50	FAM channel	Cy5 channel

Kit contents:

- Detection assay for porcine epidemic diarrhea virus (PEDV)
- Detection assay + target for internal RNA positive control (control of RT-PCR amplification and/or RNA extraction)
- RNA reaction mix
- Nuclease-free water
- Positive control (RNA) for PEDV

Background: Porcine epidemic diarrhea virus (PEDV), a member of the genus *Coronavirus (Alphacoronavirus)*, family *Coronaviridae*, is a positive-sense, enveloped, single-stranded RNA virus. Severity of disease is variable and dependent on the epidemiological status of the herd. When epidemic, PEDV causes acute watery diarrhea and vomiting in a large proportion at all ages of swine. If endemic, then diarrhea is observed with lower morbidity in suckling and recently weaned pigs. The PED virus is similar to, but antigenically distinct from transmissible gastroenteritis virus (TGEV).

Description: ViroReal® Kit PEDV is based on the amplification and detection of the nucleocapsid protein gene (N gene) of PEDV using one-step reverse transcription real-time PCR. It allows the rapid and sensitive detection of PEDV RNA isolated from feces of acutely affected pigs (e.g. with the QIAamp Viral RNA Mini Kit, Qiagen).

PCR-platforms: ViroReal® Kit PEDV is developed and validated for the ABI PRISM® 7500 instrument (Thermo Fisher Scientific), LightCycler® 480 (Roche) and Mx3005P® QPCR System (Agilent), but is also suitable for other real-time PCR instruments.

Specificity and sensitivity: ViroReal® Kit PEDV has a sensitivity of 10 RNA copies/PCR. The limit of detection (LoD95 = smallest number of copies of target RNA which can be detected in 95% of cases) is 37 target copies/reaction and was determined by several replicates around the detection limit. The kit is specific for PEDV and detects all PEDV strains published in the NCBI database. It was tested with one TGEV, one PHEV, three PEDV, eight PRRSV EU, four PPV and seven PCV2 strains. It was positive with PEDV and showed no cross-reaction with the others.

References: Kim O et al. 2002. Comparison of reverse transcription polymerase chain reaction. immunohistochemistry, and in situ hybridization for the detection of porcine epidemic diarrhea virus. Can J Vet Res. 66:112-116.

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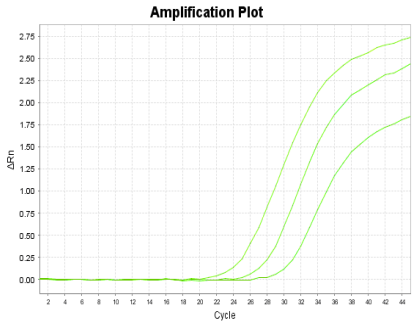
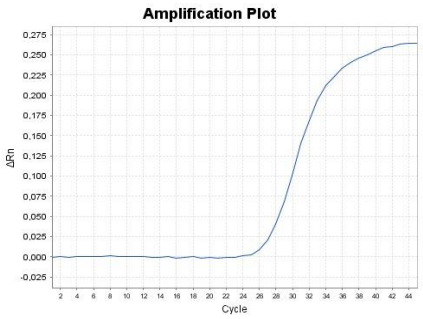
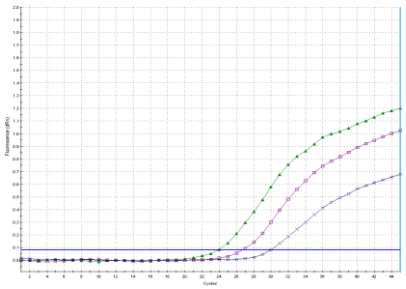
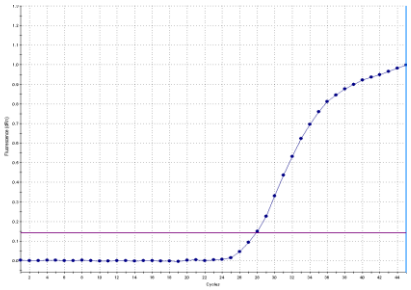
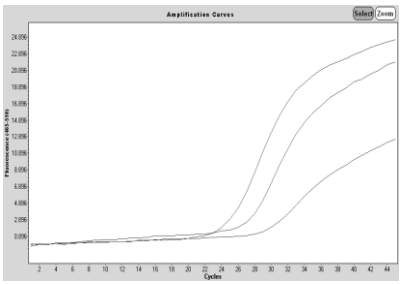
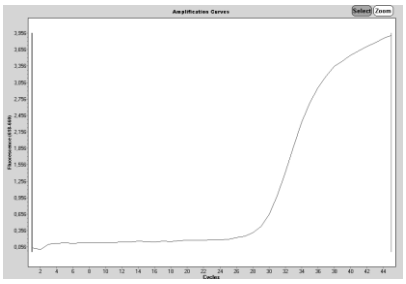
Detection of **PEDV**	Detection of **internal RNA positive control**
	
ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of a PEDV positive control	**ABI Prism® 7500:** Cy5 channel, 667 nm Detection of internal RNA positive control
	
Mx3005P®: FAM channel 1:10 serial dilution of a PEDV positive control	**Mx3005P®:** CY5 channel Detection of internal RNA positive control
	
LightCycler® 480: FAM channel 1:10 serial dilution of a PEDV positive control	**LightCycler® 480:** Cy5 channel Detection of internal RNA positive control

ViroReal®, BactoReal® and ParoReal Kits run with the same thermal cycling conditions. RNA and DNA material can be analysed in one PCR run.

For further information on our products please visit our homepage (www.ingenetix.com)

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