

ViroReal® Kit PCV2



For veterinary use only

ViroReal® Kit PCV2

Order no.	Reactions	Pathogen	Internal positive control
DVEV00513	100	FAM channel	Cy5 channel
DVEV00553	50	FAM channel	Cy5 channel
DVEV00511	100	FAM channel	VIC/HEX channel
DVEV00551	50	FAM channel	VIC/HEX channel

Kit contents:

- Detection assay for PCV2
- Detection assay for internal positive control (control of amplification)
- DNA reaction mix (contains uracil-N glycosylase, UNG)
- Positive control for PCV2
- Water



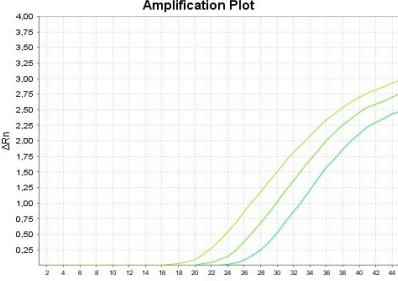
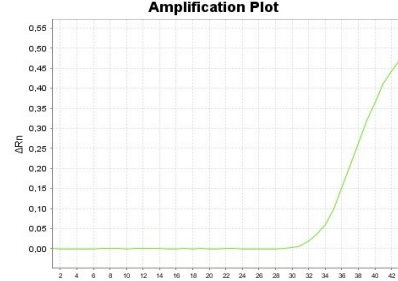
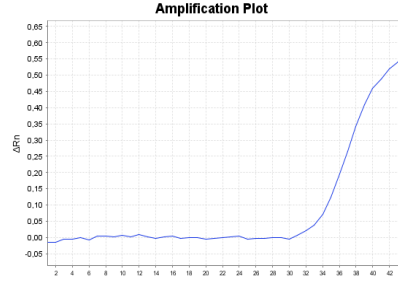
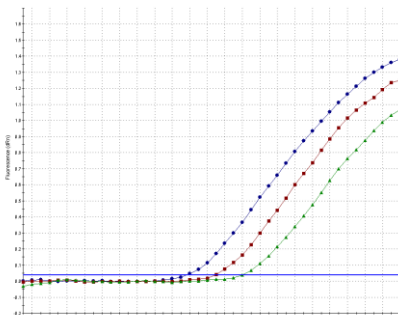
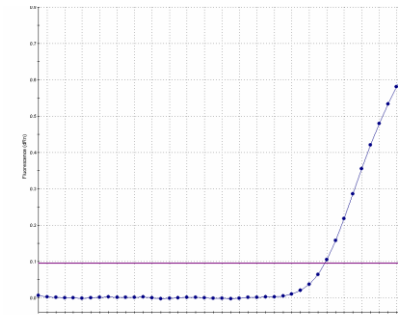
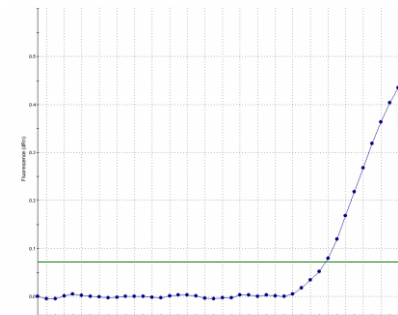
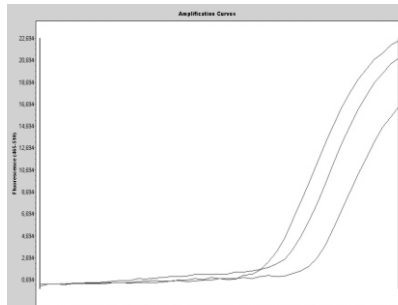
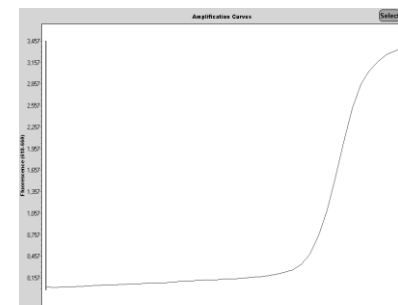
Background: The porcine circovirus is a non-enveloped virus with single-stranded and circular DNA. It can be classified into two types (PCV1 and PCV2) according to its antigenicity, pathogenicity and genomic difference. PCV1 is considered non-pathogenic while PCV2 infects pigs. PCV2-infection is widespread and essentially all pig herds are infected with PCV2 but relatively few have PCV2-associated disease (PCVAD) including postweaning multisystemic wasting syndrome (PMWS), porcine dermatitis and nephropathy syndrome (PDNS), and porcine proliferative and necrotizing pneumonia (PNP). From piglets showing PCVAD signs PCV2 can be isolated at high titres.

Description: ViroReal® Kit PCV2 is based on the amplification and detection of the ORF1 of the porcine circovirus type 2 (PCV2) including the three genotypes A, B and C known so far. It allows the rapid and sensitive detection of DNA of PCV2 from samples purified from serum, urine, faeces and tracheobronchial swab specimens (e.g. with the QIAamp DNA Mini Kit or QIAamp DSP Virus Kit). The assay is designed to detect very small amounts of PCV2 but does not detect PCV1 or PPV. The assay allows determination of PCV2 genomic copy numbers in sample material. A Quantitative real-time PCR Standard PCV2 can be ordered separately (order no. PC100). Pigs with 10^7 PCV2 genomic copies/ml serum or greater are likely to have PCV2-associated lymphoid lesions and disease (Brunborg et al., 2004).

PCR-platforms: ViroReal® Kit PCV2 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.

Sensitivity and specificity: ViroReal® Kit PCV2 has an analytical sensitivity of 1 template copy/PCR. The LoD95 (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) is 4 target copies/reaction and was determined by several replicates around the detection limit. This test is specific for porcine circovirus type 2 (no cross-reaction with PCV1) and detects all PCV2 isolates (genotypes A, B and C) published in the NCBI database. A total of 110 samples were tested and correctly analysed.

References: Gillespie J, Opriessnig T, Meng XJ, Pelzer K, Buechner-Maxwell V. 2009. Porcine circovirus type 2 and porcine circovirus-associated disease. J. Vet. Intern. Med. 23:1151-1163.

<p style="text-align: center;">Detection of PCV2</p>	<p style="text-align: center;">Detection of internal positive control CR-3</p>	<p style="text-align: center;">Detection of internal positive control CR-1</p>
<p style="text-align: center;">Amplification Plot</p> 	<p style="text-align: center;">Amplification Plot</p> 	<p style="text-align: center;">Amplification Plot</p> 
<p>ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of PCV2 DNA</p>	<p>ABI Prism® 7500: Cy5 channel, 667 nm Internal positive control</p>	<p>ABI Prism® 7500: VIC channel, 554 nm Internal positive control</p>
		
<p>Mx3005P®: FAM channel 1:10 serial dilution of PCV2 DNA</p>	<p>Mx3005P®: CY5 channel Internal positive control</p>	<p>Mx3005P®: HEX channel Internal positive control</p>
<p style="text-align: center;">Amplification Curves</p> 	<p style="text-align: center;">Amplification Curves</p> 	
<p>LightCycler® 480: FAM channel 1:10 serial dilution of PCV2 DNA</p>	<p>LightCycler® 480: Cy5 channel Internal positive control</p>	

**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)