

# ViroReal<sup>®</sup> Kit Rotavirus



## ViroReal<sup>®</sup> Kit Rotavirus

Order no.	Reactions	Pathogen	Internal positive control
DHUV02053	50	FAM channel	Cy5 channel

*For Research Use Only. Not for use in diagnostic procedures.*

### Kit contents:

- Detection assay for rotavirus
- Detection assay + target for internal RNA positive control (control of RT-PCR amplification and RNA extraction)
- RNA amplification mix
- Nuclease-free water
- Positive control (RNA) for rotavirus



**Background:** Rotavirus is a segmented double-stranded (ds) RNA virus of the family *Reoviridae* and is classified into at least 7 groups (A to G). This virus is the causative agent of severe diarrhoea in almost every mammal species (especially cattle, pig, dog, cat horse and humans) and birds. Rotaviruses are thought to be mostly species specific, but some transmission between species occurs. Rotaviruses of group A–C infect both humans and animals, while rotaviruses of group D–G infect only animals. Group A is the most prevalent one and causes approximately 90% of infections in animals and humans. Furthermore, pigs can be sporadically also infected by group B, C and E. Cattles are sporadically also infected by group B and C. Group D, F and G are found in avians.

**Description:** ViroReal<sup>®</sup> Kit Rotavirus is a test detecting RNA of the non-structural protein 4 (NSP4) gene of human rotavirus genotype A, of most strains of genotype B and C, and of some strains of the other genotypes D, E, F and G using one-step reverse transcription real-time PCR (RT-PCR). This test allows the rapid and sensitive detection of RNA of rotavirus from samples purified from stool (e.g. with the QIAamp Viral RNA Mini Kit, Qiagen).

Rotavirus is detected in FAM channel. The internal RNA positive control (RNA IPC) is detected in Cy5 channel and is used as RNA extraction as well as RT-PCR inhibition control. The RNA IPC target is extracted with the sample.

**PCR-platforms:** This kit has been validated with Applied Biosystems<sup>®</sup> 7500 Fast Real-time PCR System (Thermo Fisher Scientific) and tested with LightCycler<sup>®</sup> 480 Instrument II (Roche) and Mx3005P<sup>®</sup> QPCR System (Agilent). It is compatible with real-time PCR instruments detecting and differentiating fluorescence in FAM and Cy5 channel.

**Specificity and sensitivity:** ViroReal<sup>®</sup> Kit Rotavirus detects at least 100 target copies/reaction. The limit of detection (LoD95 = smallest number of copies of target RNA which can be detected in 95% of cases) is 115 target copies/reaction. The kit detects genotype A, most strains of genotype B and C, and some strains of the other genotypes D, E, F and G.

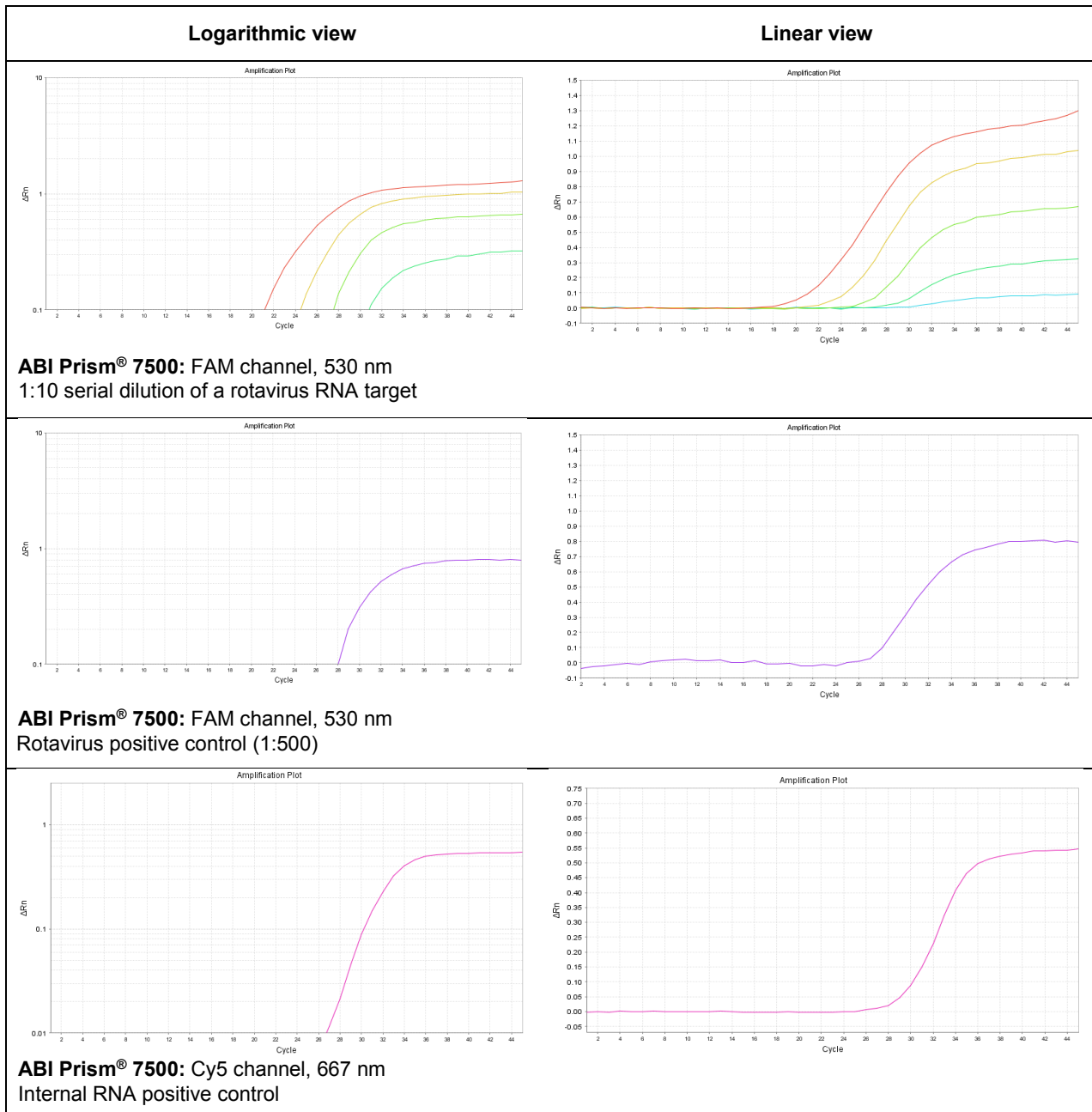


Figure 1 Performance of ViroReal® Kit Rotavirus

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