

# ViroReal<sup>®</sup> Kit Human Coronavirus alpha



For research use only

## ViroReal<sup>®</sup> Kit Human Coronavirus alpha

Order no.	Reactions	Pathogen	Internal positive control
DHUV01153	50	FAM + VIC channel	Cy5 channel

### Kit contents:

- Detection assay for NL63 and 229E
- 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 NL63 and 229E



**Background:** Coronaviruses are positive single-stranded (+)ssRNA RNA viruses of the family *Coronaviridae*. Several different strains of coronaviruses are currently known to infect humans (HCoV-229E, HCoV-NL63, HCoV-OC43, HCoV-HKU1, MERS-CoV, SARS-CoV, NCoV and HCoV-EMC). Strains HCoV-229E, HCoV-NL63, HCoV-OC43, MERS-CoV and HCoV-HKU1 cause cold, upper respiratory infection, bronchiolitis and pneumonia in humans. SARS-CoV causes the Severe Acute Respiratory Syndrome.

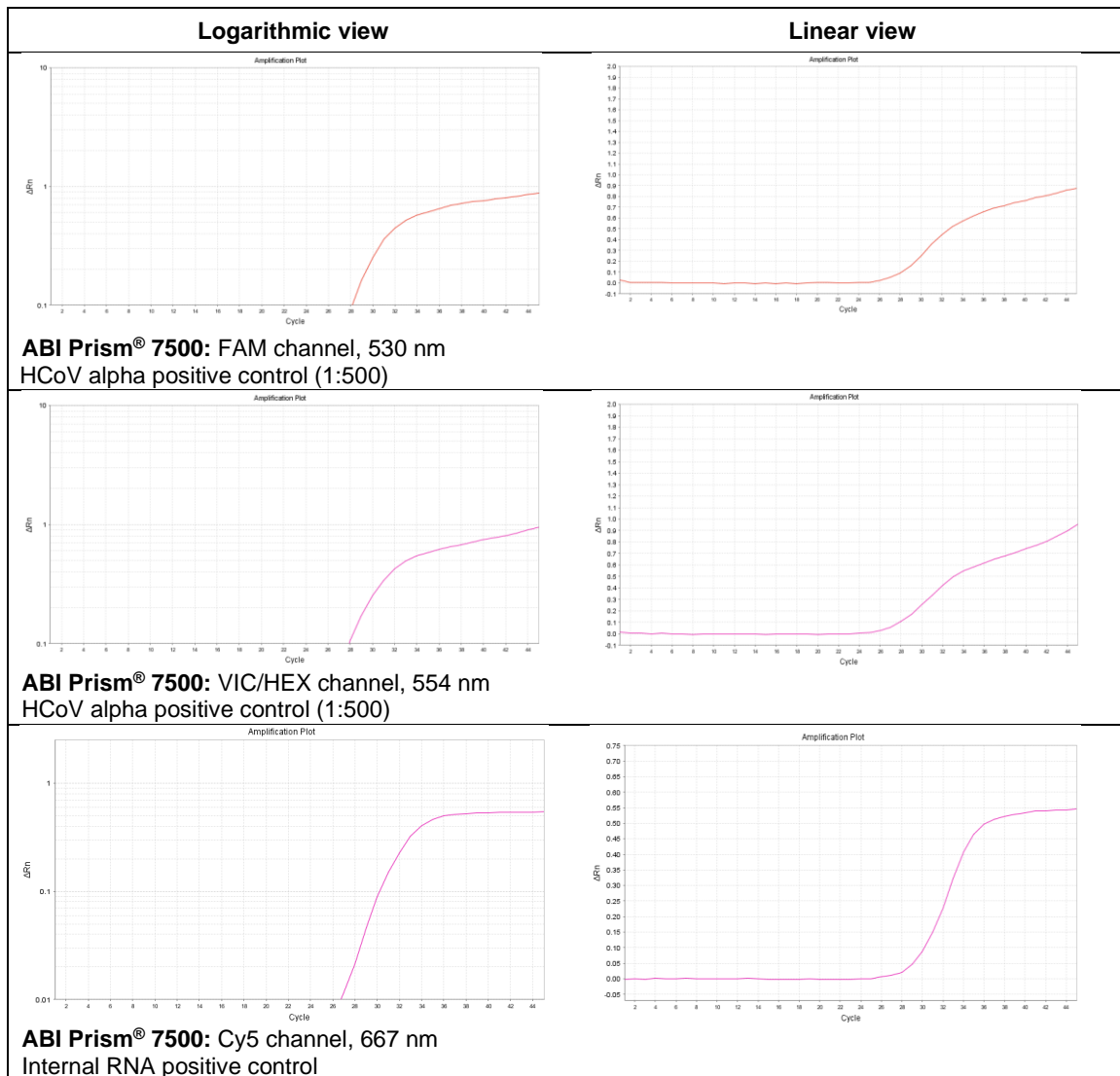
**Description:** ViroReal<sup>®</sup> Kit Human Coronavirus alpha is a test detecting RNA of the N gene of human coronavirus NL63 and 229E using one-step reverse transcription multiplex real-time PCR (RT-PCR). This test allows the rapid and sensitive detection and differentiation of RNA of NL63 and 229E from samples purified from the respiratory tract (e.g. with the QIAamp Viral RNA Mini Kit, Qiagen).

HCoV-NL63 is detected in FAM channel (530 nm), HCoV-229E is detected in VIC channel (554 nm).

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, VIC/HEX and Cy5 channel.

**Specificity:** ViroReal<sup>®</sup> Kit Human Coronavirus alpha is specific for so far known NL63 and 229E strains.



**Figure 1** Performance of ViroReal® Kit Human Coronavirus alpha

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