## ViroReal<sup>®</sup> Kit Adenovirus



ViroReal <sup>®</sup> Kit Adenovirus			
Order no.	Reactions	Pathogen	Internal positive control
DHUV00153	50	FAM channel	Cy5 channel

## Kit contents:

- Detection assay for adenovirus
- Detection assay + target for internal DNA positive control (control of PCR amplification and DNA extraction)
- DNA reaction mix
- Nuclease-free water
- Positive control for adenovirus



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**Background:** Adenoviruses are non-enveloped, double-stranded, linear DNA viruses (dsDNA) belonging to the family Adenoviridae, genus Mastadenovirus. At present seven human adenovirus species are known (A-G) which are divided in more than 50 serotypes. They can cause diseases of the respiratory tract, but also gastroenteritis, conjunctivitis, cystitis, rhinitis, pharyngitis or diarrhoea. Human adenoviruses have a worldwide distribution.

**Description:** ViroReal<sup>®</sup> Kit Adenovirus is an *in vitro* diagnostic test detecting DNA of the hexon gene of the so far known species A-G of adenovirus using real-time PCR. This test allows the rapid detection of adenovirus DNA from samples purified from the respiratory tract and stool (e.g. with the QIAamp Viral RNA Mini Kit, Qiagen).

Adenovirus DNA is detected in FAM channel. The internal DNA positive control (DNA IPC) is detected in Cy5 channel and is used as DNA extraction as well as PCR inhibition control. The DNA 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 Adenovirus detects at least 10 target copies/reaction of adenovirus species B, C, D, E and G, at least 100 target copies/reaction of adenovirus species F and at least 1000 target copies/reaction of adenovirus species A. The limit of detection (LoD95 = smallest number of target DNA copies which can be detected in 95% of cases) is 137 copies/reaction for adenovirus B, 120 copies/reaction for adenovirus C and 40 copies/reaction for adenovirus G.

Twelve different adenovirus strains (adenovirus A (n=2), adenovirus B (n=4), adenovirus C (n=4), adenovirus D (n=1) and adenovirus E (n=1)) were analyzed and detected. Diagnostic evaluation was performed with viral isolates and clinical samples. This kit is specific for so far known adenovirus species A-G.

ViroReal<sup>®</sup> Kit Adenovirus Product description v1.1en





Figure 1 Performance of ViroReal® Kit Adenovirus

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