

BactoReal[®] Kit *Streptococcus pneumoniae*



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Order no.	Reactions	Pathogen	Internal positive control
DHUB01453	50	FAM channel	Cy5 channel

Kit contents:

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



Background: *Streptococcus pneumoniae* (pneumococci) is a Gram-positive, alpha-hemolytic bacterium which can cause pneumonia (community-acquired pneumonia, CAP), bronchitis, otitis media, meningitis and sepsis. Pneumococci commonly colonize the upper human respiratory tract and can also be found in healthy persons (40% und 70%). Transmission occurs through close contact with contaminated respiratory droplets. The risk of a pneumococcal infection is much increased in persons with a weak immune system and elder people.

Description: BactoReal[®] Kit *Streptococcus pneumoniae* is an *in vitro* diagnostic test detecting DNA of the *lytA* gene of *S. pneumoniae* using real-time PCR. This test allows the rapid and sensitive detection of DNA of *S. pneumoniae* from samples purified from cerebrospinal fluid and the respiratory tract (e.g. with the QIAamp DNA Mini Kit, Qiagen). *Streptococcus pneumoniae* 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[®] 7500 Fast Real-time PCR System (Thermo Fisher Scientific) and tested with LightCycler[®] 480 Instrument II (Roche) and Mx3005P[®] QPCR System (Agilent). It is compatible with real-time PCR instruments detecting and differentiating fluorescence in FAM and Cy5 channel.

Specificity and sensitivity: BactoReal[®] Kit *Streptococcus pneumoniae* detects up to 10 target copies/reaction of *S. pneumoniae*. The limit of detection (LoD95 = smallest number of target DNA copies which can be detected in 95% of cases) is 27 copies/reaction. Diagnostic evaluation was performed with bacterial isolates and with clinical samples. This kit is specific for *S. pneumoniae*.

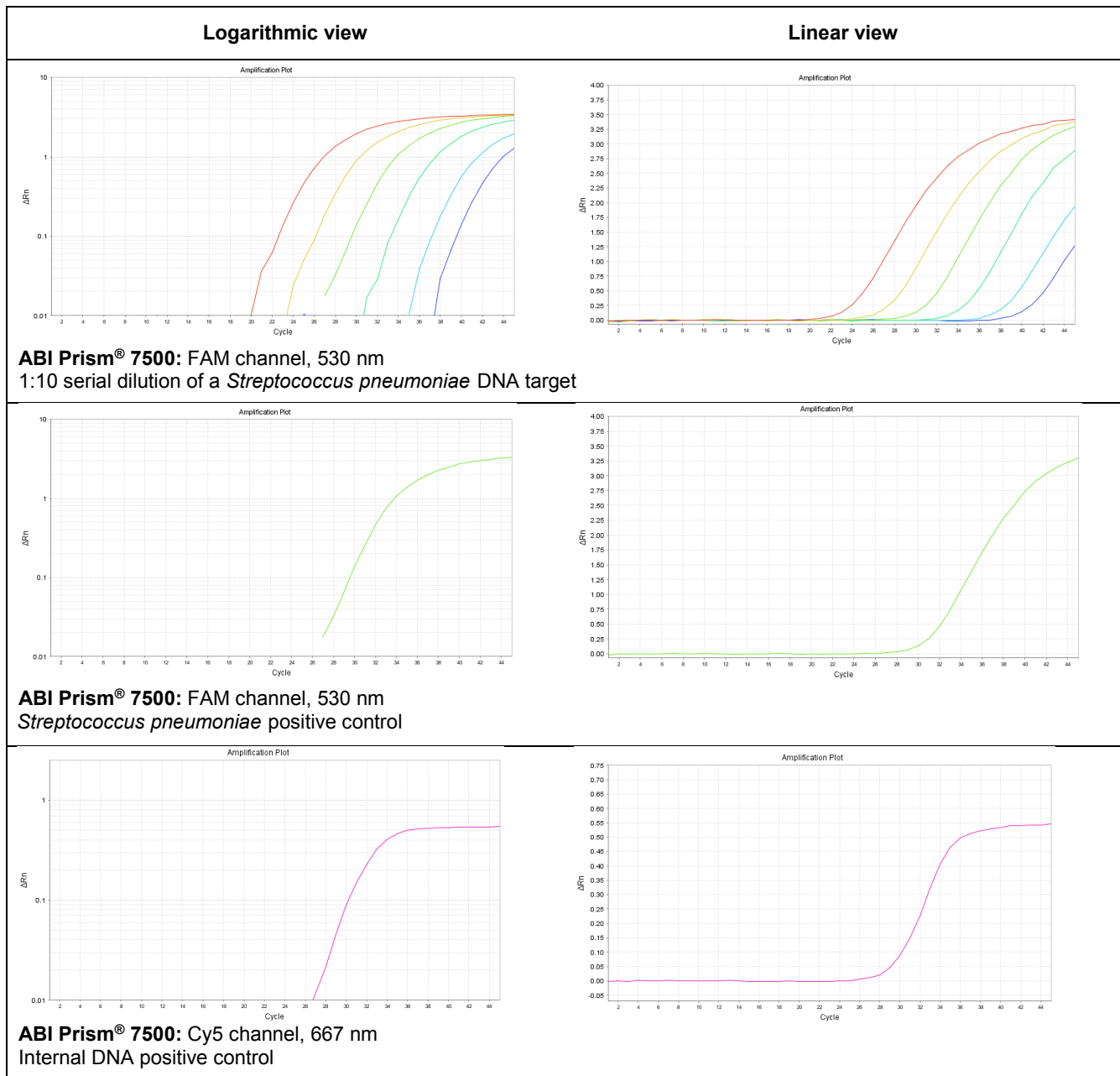


Figure 1 Performance of BactoReal® Kit *Streptococcus pneumoniae*

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