

BactoReal® Kit *Streptococcus agalactiae*



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Order no.	Reactions	Pathogen	Internal positive control
DHUB01553	50	FAM channel	Cy5 channel

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

Kit content:

- Detection assay for *Streptococcus agalactiae*
- 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 agalactiae*



Background: *Streptococcus agalactiae* (also known as Group B streptococcus or GBS) is a beta-hemolytic Gram-positive streptococcus. It is pathogenic primarily for animals, but can also infect humans. Since *S. agalactiae* strains isolated from animals can be differed from those isolated from humans, transmission from animals to humans is rare. *Streptococcus agalactiae* is a member of the gastrointestinal normal flora in some humans and can spread to secondary sites including the vagina. For this reason, it can cause sepsis, pneumonia and meningitis in newborns. In persons with a weak immune system, it can cause infections of the urinary tract and of wounds, meningitis and sepsis. *Streptococcus agalactiae* secretes a protein (CAMP factor) which causes haemolysis in presence of the beta-toxin of *Staphylococcus aureus* in blood agar.

Description: BactoReal® Kit *Streptococcus agalactiae* is a real-time PCR test detecting DNA of the *cfb* gene of *Streptococcus agalactiae*. It allows the rapid and sensitive detection of *Streptococcus agalactiae* from DNA samples purified from liquor, blood or swabs (e.g. with QIAamp DNA Mini Kit). *Streptococcus agalactiae* 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 agalactiae* detects at least 1 target copies/reaction. The limit of detection (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) is 3 target copies/reaction and was determined by several replicates around the detection limit. Specificity was tested on different bacterial isolates (*B. paraperussis*, *B. pertussis*, *C. pneumoniae*, *E. coli*, *H. influenzae*, *L. monocytogenes*, *L. pneumophila*, *M. pneumoniae*, *N. meningitidis*, *P. multocida*, *S. anginosus*, *S. constellatus*, *S. equinus*, *S. intermedius*, *S. mitis*, *S. mutans*, *S. parasanguinis*, *S. pneumoniae*, *S. pyogenes*, *S. sanguis*, *S. uberis*, *S. bovis*, *S. dysgalactiae*, *S. canis*, *S. aureus*, *A. viridans*, *E. faecium*, *E. faecalis*, *Corynebacterium* and *Cryptococcus*). No cross-reactions were observed.

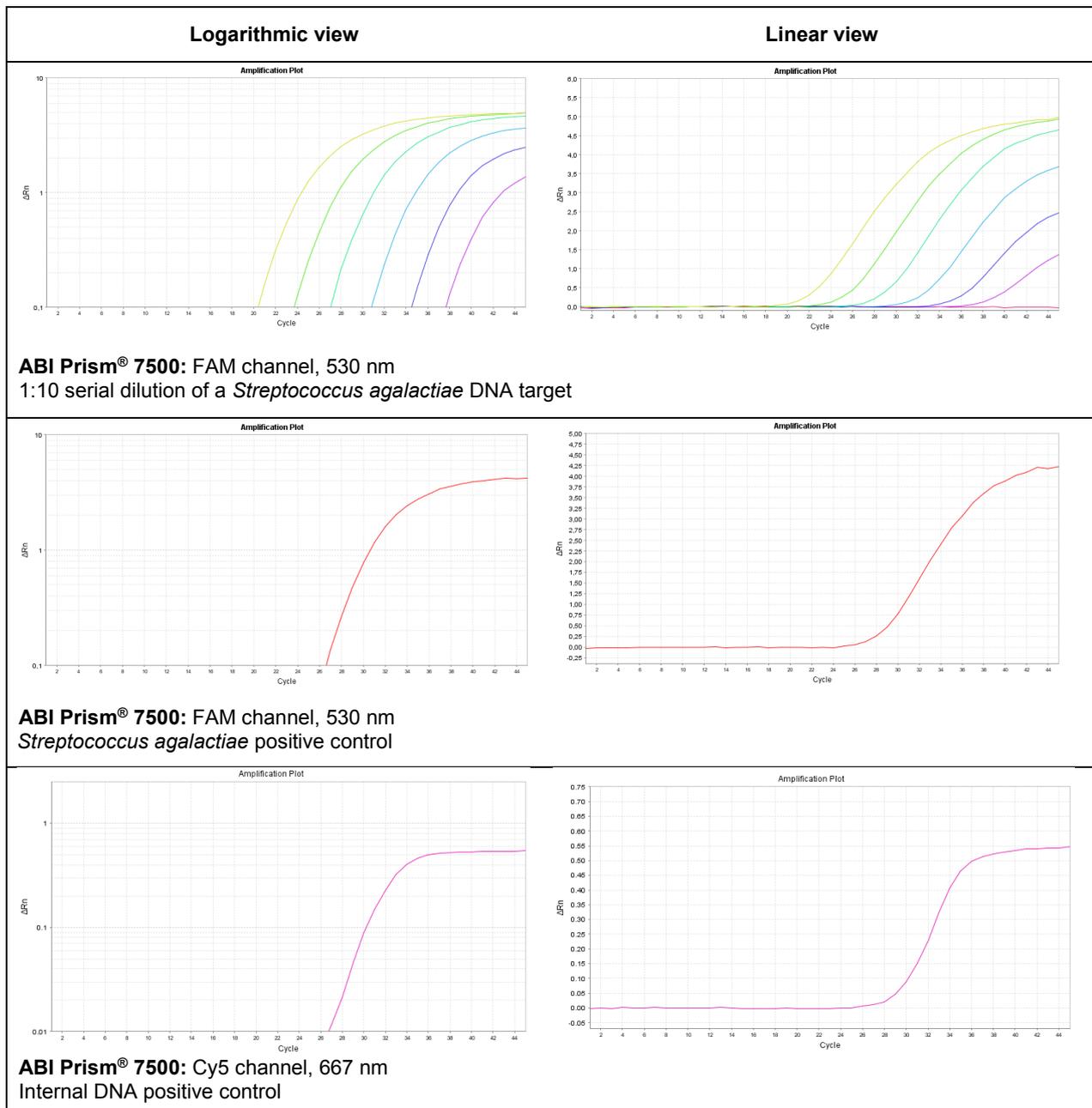


Figure 1 Performance of BactoReal® Kit *Streptococcus agalactiae*

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