

BactoReal® Kit

Streptococcus agalactiae



For veterinary use only

BactoReal® Kit *Streptococcus agalactiae*

| Order no. | Reactions | Pathogen | Internal positive control |
|-----------|-----------|-------------|---------------------------|
| DVEB01513 | 100 | FAM channel | Cy5 channel |
| DVEB01553 | 50 | FAM channel | Cy5 channel |
| DVEB01511 | 100 | FAM channel | VIC/HEX channel |
| DVEB01551 | 50 | FAM channel | VIC/HEX channel |

Kit contents:

- Detection assay for *Streptococcus agalactiae*
- Detection assay for internal positive control (control of amplification)
- DNA reaction mix (contains uracil-N glycosylase, UNG)
- Positive control for *S. agalactiae*
- Water



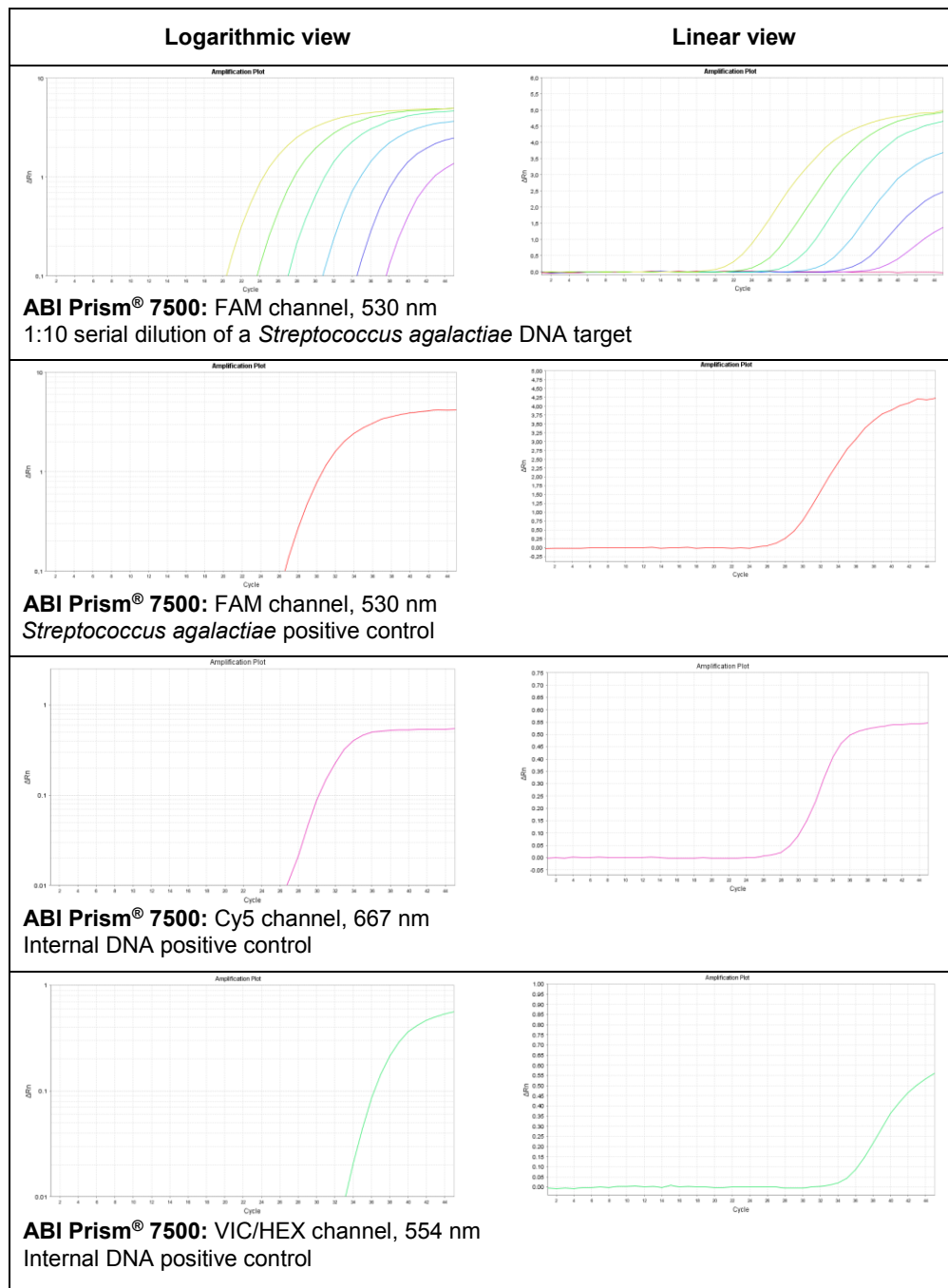
Background: *Streptococcus agalactiae* (also known as Group B streptococcus or GBS) is a beta-hemolytic Gram-positive streptococcus. It is pathogenic primarily for animals, but can also infect humans. Since *S. agalactiae* strains isolated from animals can be differentiated from those isolated from humans, transmission from animals to humans is rare. In cattle it causes mastitis, an infection of the udder which leads to diminished milk production. Transmission occurs during milking. *Streptococcus agalactiae* secretes a protein (CAMP factor) which causes haemolysis in the presence of beta-toxin of *Staphylococcus aureus* in blood agar.

Description: BactoReal® Kit *Streptococcus agalactiae* is based on the amplification and detection of the *cfb* gene of *S. agalactiae* using real-time PCR. It allows the rapid and sensitive detection of the *cfb* gene of *S. agalactiae* from DNA samples purified from milk or other sample material.

PCR-platforms: BactoReal® Kit *Streptococcus agalactiae* is developed and validated for the ABI PRISM® 7500 instrument (Thermo Fisher Scientific), LightCycler® 480 (Roche) and Mx3005P® QPCR System (Agilent), but is also suitable for other real-time PCR instruments.

Sensitivity and specificity: BactoReal® Kit *Streptococcus agalactiae* has a sensitivity of 1 target copy/PCR 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 isolates of *B. parapertussis*, *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.

References: Keefe GP. 1997. *Streptococcus agalactiae* mastitis: a review. Can Vet J. 38:429-437.



BactoReal®, MycoReal, ParoReal and ViroReal® Kits run with the same thermal cycling conditions. RNA and DNA material can be analysed in one PCR run.

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