

BactoReal® Kit *Streptococcus dysgalactiae*



For veterinary use only

BactoReal® Kit *Streptococcus dysgalactiae*

Order no.	Reactions	Pathogen	Internal positive control
DVEB01713	100	FAM + VIC/HEX channel	Cy5 channel
DVEB01753	50	FAM + VIC/HEX channel	Cy5 channel

Kit contents:

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



Background: *Streptococcus dysgalactiae* is a Gram-positive bacterium belonging to the group C streptococci. It is known to cause clinically acute and subclinical mastitis in cows, ewes and goats, as well as polyarthritis.

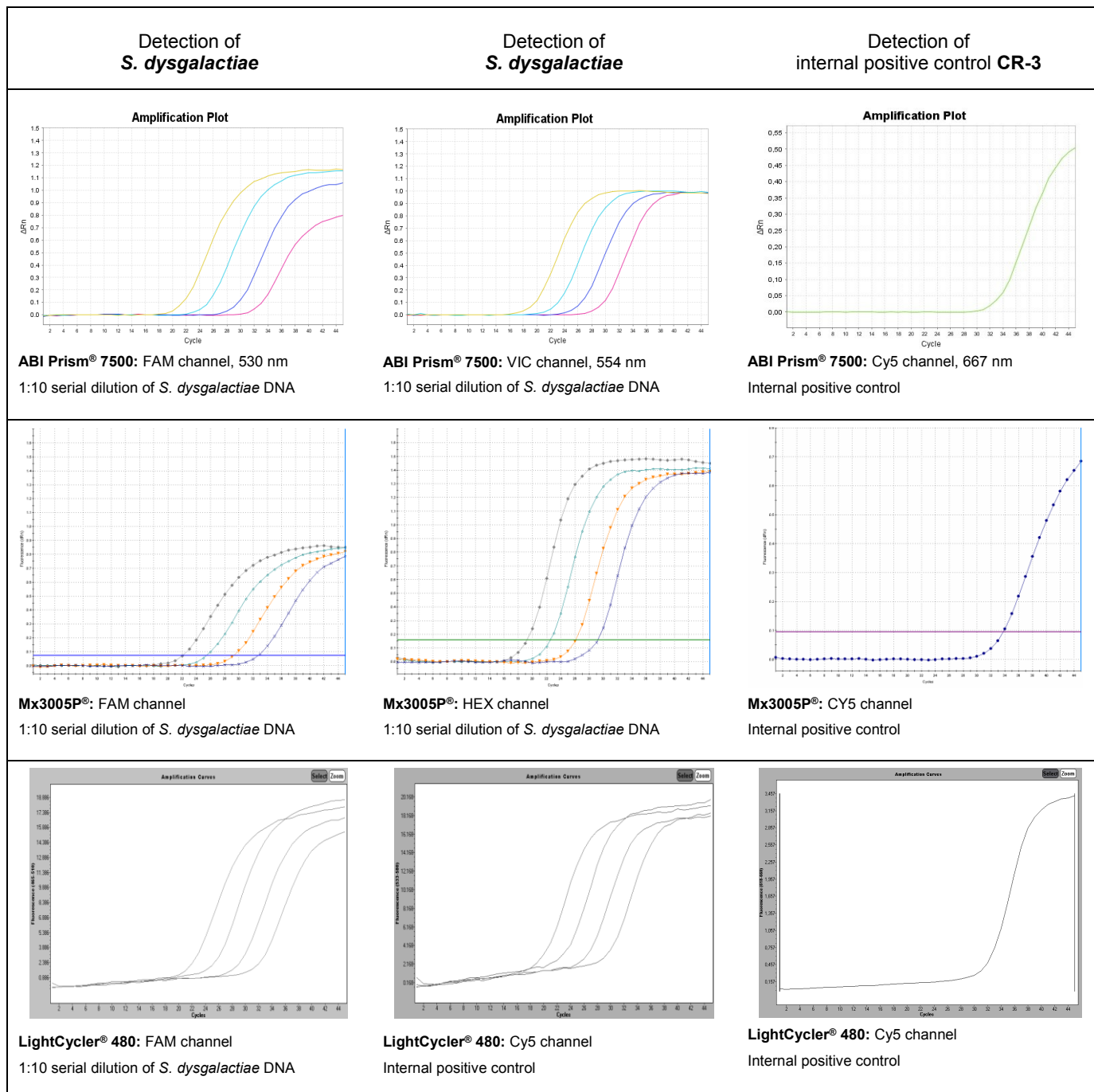
Description: BactoReal® Kit *Streptococcus dysgalactiae* allows the rapid and sensitive detection of *S. dysgalactiae* (*S. dysgalactiae* subsp. *equisimilis* and *S. dysgalactiae* subsp. *dysgalactiae*) from DNA samples purified from milk or other sample material. This test is performed in a multiplex real-time PCR format to enable a differentiation between *S. dysgalactiae* from other *Streptococcus* species, especially *S. canis*. It is based on the amplification and detection of the 23S rRNA gene and 16S rRNA gene.

In FAM channel the 23S rRNA gene of *S. dysgalactiae* and *S. canis* is detected. In VIC/HEX channel the 16S rRNA gene of several *Streptococcus* species (*S. dysgalactiae*, *S. agalactiae*, *S. phocae*, *S. porcinus*, *S. didelphis*) except that of *S. canis* is detected. Thus, samples showing a positive signal in FAM as well as in VIC/HEX channel are positive for *S. dysgalactiae*.

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

Sensitivity and specificity: BactoReal® Kit *Streptococcus dysgalactiae* has an analytical sensitivity of 5 target copies number per PCR reaction. The limit of detection (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) is 32 target copies/reaction and was determined by several replicates around the detection limit. The kit was tested on isolates of *E. coli*, *H. parasuis*, *L. monocytogenes*, *P. multocida*, *S. agalactiae*, *S. anginosus*, *S. constellatus*, *S. equinus*, *S. intermedius*, *S. mitis*, *S. mutans*, *S. parasanguinis*, *S. sanguis*, *S. uberis*, *S. pneumoniae*, *S. pyogenes* and *S. aureus*. Weak cross reactions in FAM channel were observed with *S. intermedius*, *S. pyogenes* and *S. constellatus*. Seven *S. dysgalactiae* isolates were correctly analyzed.

References: Bradley, A. J. 2002. Bovine mastitis: An evolving disease. The Veterinary Journal, 163: 1-13.



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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