BactoReal® Kit
Mycobacterium avium ssp. *paratuberculosis*

For veterinary use only

BactoReal® Kit *Mycobacterium avium* ssp. *paratuberculosis*			
Order no.	**Reactions**	**Pathogen**	**Internal positive control**
DVEB02213	100	FAM channel	Cy5 channel
DVEB02253	50	FAM channel	Cy5 channel
DVEB02211	100	FAM channel	VIC/HEX channel
DVEB02251	50	FAM channel	VIC/HEX channel

Kit contents:

- Detection assay for *Mycobacterium avium* ssp. *paratuberculosis*
- Detection assay for internal positive control (control of amplification)
- DNA reaction mix (contains uracil-N glycosylase, UNG)
- Positive control for *M. avium* ssp. *paratuberculosis*
- Water

Background: *Mycobacterium avium* ssp. *paratuberculosis* (MAP) causes Johne's disease, a chronic gastroenteritis affecting primarily ruminants and many other species. This disease is one of the most widespread and economically important diseases of ruminants. It has a relatively long incubation period which is characterized by the excretion of MAP in faeces for months and years before first clinical symptoms develop.

Description: BactoReal® Kit *Mycobacterium avium* ssp. *paratuberculosis* is based on the amplification and detection of the insertion sequence IS900 of *M. avium* ssp. *paratuberculosis* using real-time PCR. It allows the rapid and sensitive detection of MAP from DNA samples purified from fecal samples, milk or tissues (e.g. with the QIAamp DNA Mini Kit).

PCR-platforms: BactoReal® Kit *Mycobacterium avium* ssp. *paratuberculosis* 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 *Mycobacterium avium* ssp. *paratuberculosis* has an analytical sensitivity of 6 target copies/PCR reaction. The limit of detection (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) is 43 target copies/reaction and was determined by several replicates around the detection limit. The kit was tested on several bacterial isolates, including *Leptospira interrogans*, *Listeria monocytogenes*, *Haemophilus parasuis*, *Mycoplasma hyorhinis*, *Mycoplasma hyopneumoniae*, *Mycoplasma pneumoniae*, *Staphylococcus aureus* and *Streptococcus pneumoniae*. No cross-reactions were observed. Furthermore, 46 fecal samples were tested for *Mycobacterium avium* ssp. *paratuberculosis* and correctly analysed.

References: Harris, N.B. and Barletta, R.G. 2001. *Mycobacterium avium* subsp. *paratuberculosis* in veterinary medicine. Clin. Microbiol. Rev. 14:489-506.

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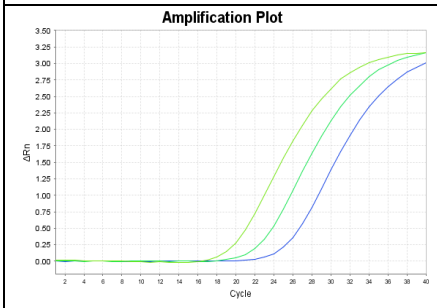
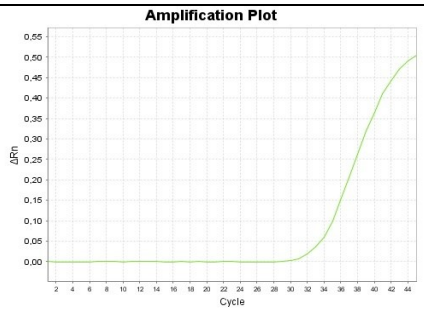
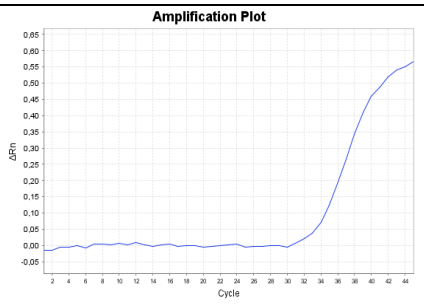
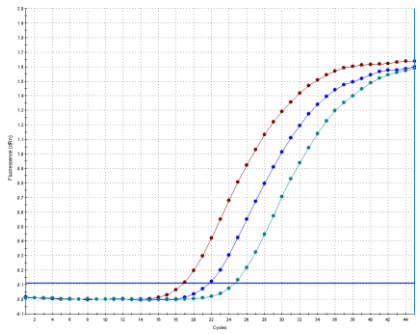
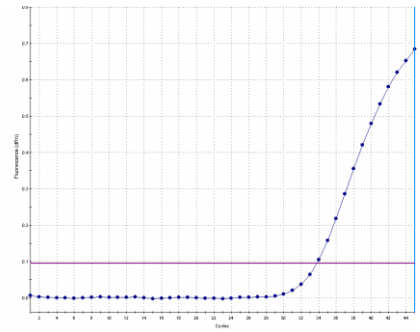
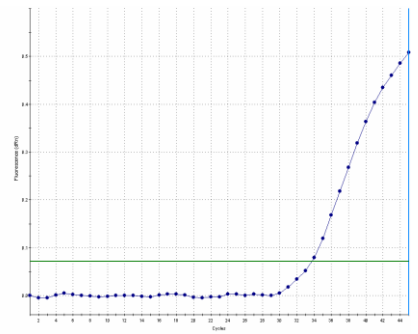
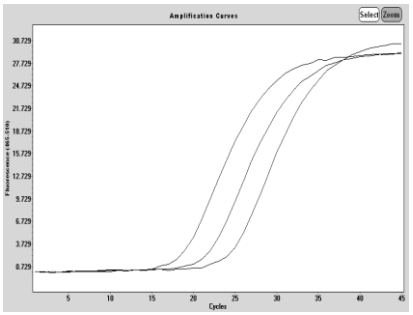
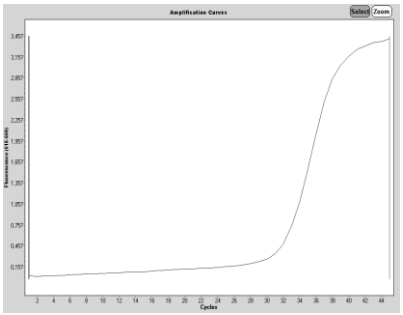
Detection of ***M. avium* ssp. *paratuberculosis***	Detection of internal positive control **CR-3**	Detection of internal positive control **CR-1**
		
ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of MAP DNA	**ABI Prism® 7500:** Cy5 channel, 667 nm Internal positive control	**ABI Prism® 7500:** VIC channel, 554 nm Internal positive control
		
Mx3005P®: FAM channel 1:10 serial dilution of MAP DNA	**Mx3005P®:** CY5 channel Internal positive control	**Mx3005P®:** HEX channel Internal positive control
		
LightCycler® 480: FAM channel 1:10 serial dilution of MAP DNA	**LightCycler® 480:** Cy5 channel Internal positive control	

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

For further information on our products please visit our homepage (www.ingenetix.com)

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