

BactoReal® Kit *Mycobacterium tuberculosis* complex



For veterinary use only

BactoReal® Kit *Mycobacterium tuberculosis* complex

Order no.	Reactions	Pathogen	Internal positive control
DVEB02713	100	FAM channel	Cy5 channel
DVEB02753	50	FAM channel	Cy5 channel
DVEB02711	100	FAM channel	VIC/HEX channel
DVEB02751	50	FAM channel	VIC/HEX channel

Kit contents:

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



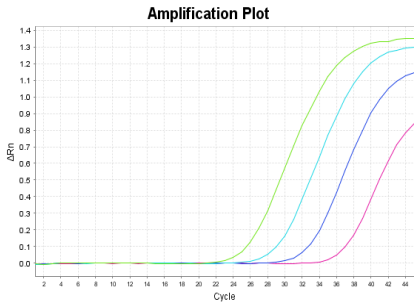
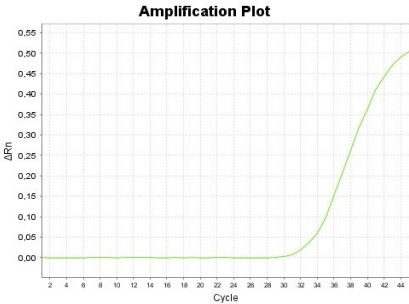
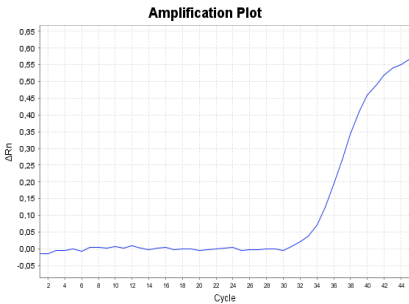
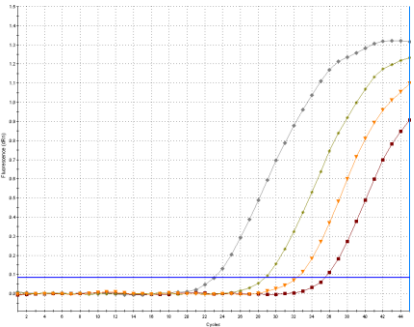
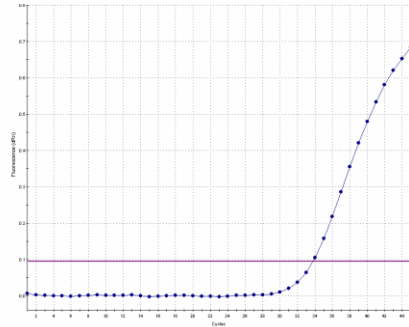
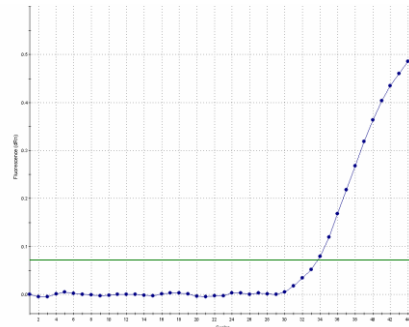
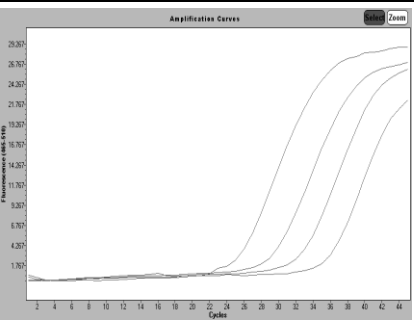
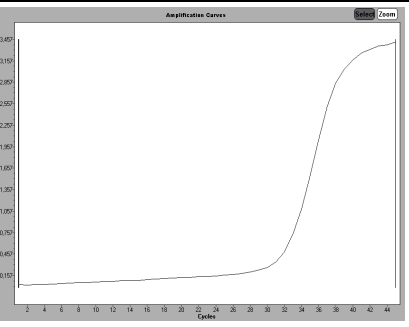
Background: Tuberculosis in humans is caused by members of the *Mycobacterium tuberculosis* complex (MTBC). The eight closely related species of the MTBC have a wide range of natural hosts, including human hosts (*M. tuberculosis*, *M. africanum*, *M. canettii*), bovine hosts (*M. bovis*), caprine hosts (*M. caprae*), rodent hosts (*M. microti*), and pinniped hosts (*M. pinnipedii*). Bovine tuberculosis remains an important disease in many countries of the world, causing significant economic losses.

Description: BactoReal® Kit *Mycobacterium tuberculosis* complex is based on the amplification and detection of the ITS2 region of *Mycobacterium* species belonging to the *Mycobacterium tuberculosis* complex (*M. tuberculosis*, *M. bovis*, *M. caprae*, *M. canetti*, *M. africanum* and *M. microti*) using real-time PCR. It allows the rapid and sensitive detection thereof from DNA samples purified from bronchoalveolar lavage, pleural fluid, nasopharyngeal swab, nasopharyngeal aspirate, liquor, sputum, urine, whole blood, tissue and paraffine blocks (e.g. with the QIAamp DNA Mini Kit extraction methods).

PCR-platforms: BactoReal® Kit *Mycobacterium tuberculosis* complex 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 tuberculosis* complex has an analytical sensitivity of 5 target copies per PCR and is specific for *Mycobacterium* species belonging to the *Mycobacterium tuberculosis* complex.

References: Tenguria, R.K., Khan F.N., Sadaf Quereshi, S., and Pandey, A. 2011. Epidemiological study of zoonotic tuberculosis complex (ZTBC). World Journal of Science and Technology, 1: 31-56.

Detection of <i>M. tuberculosis</i>	Detection of internal positive control CR-3	Detection of internal positive control CR-1
<p>Amplification Plot</p> 	<p>Amplification Plot</p> 	<p>Amplification Plot</p> 
<p>ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of <i>M. tuberculosis</i> DNA</p>	<p>ABI Prism® 7500: Cy5 channel, 667 nm Internal positive control</p>	<p>ABI Prism® 7500: VIC channel, 554 nm Internal positive control</p>
		
<p>Mx3005P®: FAM channel 1:10 serial dilution of <i>M. tuberculosis</i> DNA</p>	<p>Mx3005P®: CY5 channel Internal positive control</p>	<p>Mx3005P®: HEX channel Internal positive control</p>
		
<p>LightCycler® 480: FAM channel 1:10 serial dilution of <i>M. tuberculosis</i> DNA</p>	<p>LightCycler® 480: Cy5 channel Internal positive control</p>	

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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