

BactoReal® Kit

Borrelia burgdorferi sensu lato



For veterinary use only

BactoReal® Kit *Borrelia burgdorferi sensu lato*

Order no.	Reactions	Pathogen	Internal positive control
DVEB05013	100	FAM channel	Cy5 channel
DVEB05053	50	FAM channel	Cy5 channel
DVEB05011	100	FAM channel	VIC/HEX channel
DVEB05051	50	FAM channel	VIC/HEX channel

Kit contents:

- Detection assay for *Borrelia burgdorferi sensu lato*
- Detection assay for internal positive control (control of amplification)
- DNA reaction mix (contains uracil-N glycosylase, UNG)
- Positive control for *Borrelia*
- Water



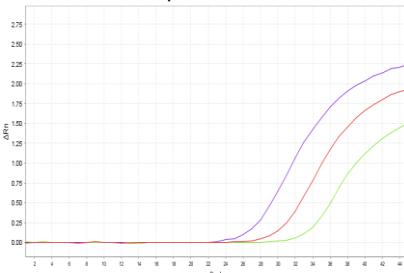
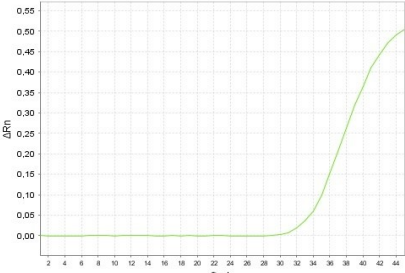
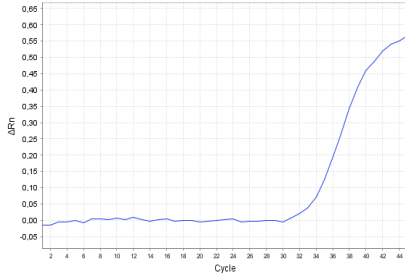
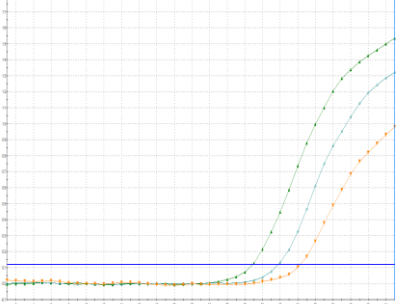
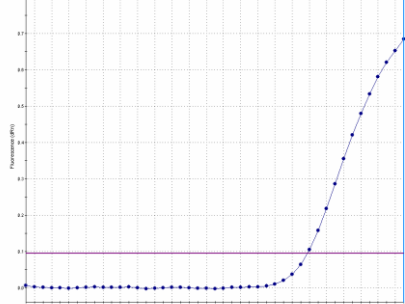
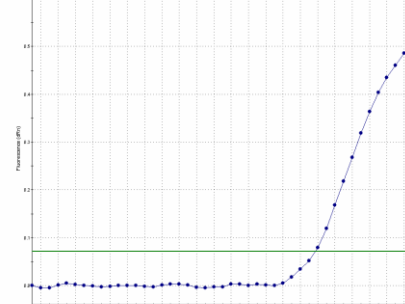
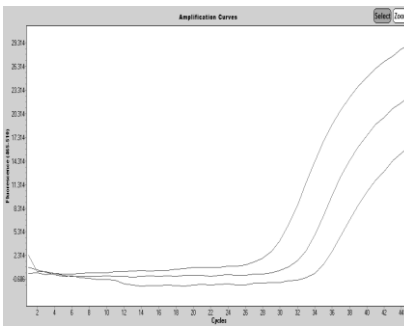
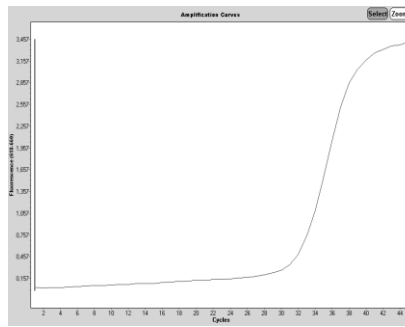
Background: *Borrelia* are Gram-negative bacteria belonging to the *Spirochaetaceae*. *Borrelia burgdorferi sensu stricto*, *B. garinii*, *B. afzelii*, *B. valaisiana*, *B. lusitaniae* and *B. spielmanii* belong to the *B. burgdorferi sensu lato*-complex and cause the Lyme disease (Lyme borreliosis). These species are associated with different genospecies specific symptoms. They are transmitted by ticks, mainly by *Ixodes ricinus*. The Lyme disease is a multisystemic illness, which can affect various organs, especially the nervous system, skin, heart and joints.

Description: BactoReal® Kit *Borrelia burgdorferi sensu lato* is based on the amplification and detection of the ospA gene of *Borrelia* species belonging to the *Borrelia burgdorferi sensu lato* complex using real-time PCR. It allows the rapid and sensitive detection of *Borrelia burgdorferi sensu lato* strains from samples purified from tissue, blood or cerebrospinal fluid (e.g. with the QIAamp DNA Mini Kit).

PCR-platforms: BactoReal® Kit *Borrelia burgdorferi sensu lato* 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 *Borrelia burgdorferi sensu lato* has a sensitivity of 10 target copies DNA/PCR reaction. The limit of detection (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) is 42 target copies/reaction. The kit was tested with several bacterial isolates and clinical samples and is specific for species belonging to the *Borrelia burgdorferi sensu lato* complex. *Borrelia spielmanii* is not well detected with this kit.

References: O'Connell S. 2010. Lyme borreliosis: current issues in diagnosis and management. *Curr. Opin. Infect. Dis.* 23:231-5.

<p>Detection of <i>Borrelia burgdorferi</i></p>	<p>Detection of internal positive control CR-3</p>	<p>Detection of internal positive control CR-1</p>
<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>Borrelia</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>Borrelia</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>Borrelia</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.**

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