

BactoReal® Kit *Bartonella* spp.



For veterinary use only

BactoReal® Kit <i>Bartonella</i> spp.			
Order no.	Reactions	Pathogen	Internal positive control
DVEB03913	100	FAM channel	Cy5 channel
DVEB03953	50	FAM channel	Cy5 channel
DVEB03911	100	FAM channel	VIC/HEX channel
DVEB03951	50	FAM channel	VIC/HEX channel

Kit content:

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



Background: *Bartonella* species are gram-negative, fastidious bacteria. In addition to dogs and cats, numerous domestic and wild animals, including bovine, canine, and rodent species as well as humans can serve as a reservoir host for various *Bartonella* species. Cats may harbor *B. henselae*, *B. clarridgeiae* and rarely other *Bartonella* species. Dogs may carry *Bartonella vinsonii* subsp. *berkhoffii*, *Bartonella henselae* and others. Humans can be a reservoir or an incidental host for *B. bacilliformis*, *B. clarridgeiae*, *B. elizabethae*, *B. grahamii*, *B. henselae*, *B. koehlerae*, *B. quintana*, *B. rochalimae*, *B. vinsonii* and *B. washoensis*. *Bartonella bacilliformis* causes Carrion's disease (Oroya fever and Verruga peruana). *Bartonella henselae*, which frequently causes chronic bacteremia in cats, is the most common etiologic agent of cat scratch disease. It can also cause bacillary angiomatosis, peliosis hepatitis, and sometimes endocarditis in immunocompromised human patients. *Bartonella clarridgeiae* can cause chronic bacteremia in cats and has been associated with cat scratch disease in humans. *Bartonella quintana* is the etiologic agent of trench fever and has also been associated with bacteremia, endocarditis, and bacillary angiomatosis. The other *Bartonella* species infecting humans have mainly been implicated in endocarditis and neuroretinitis.

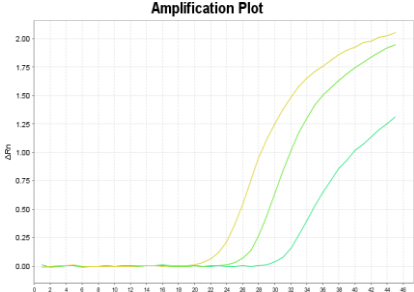
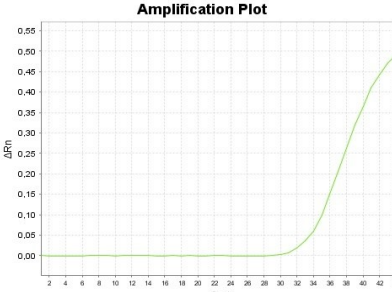
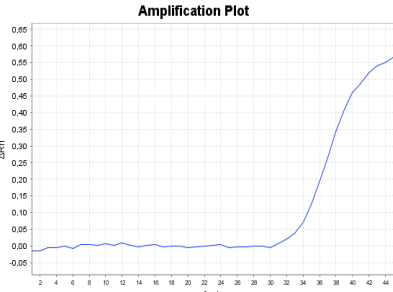
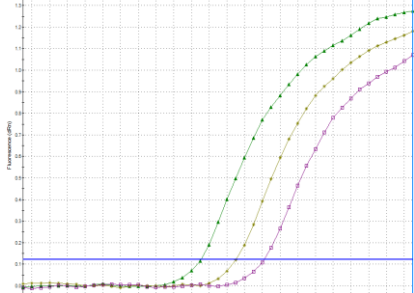
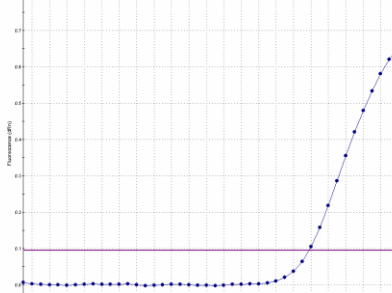
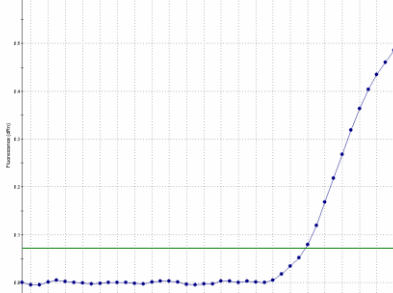
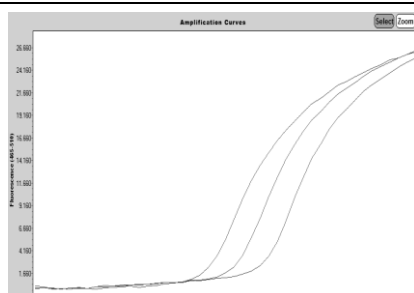
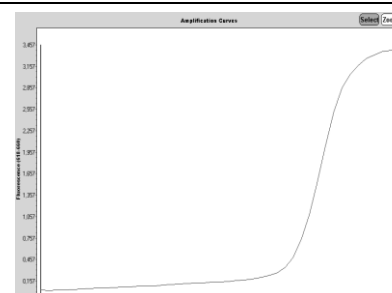
Description: BactoReal® Kit *Bartonella* spp. is based on the amplification and detection of the *gltA* gene of *B. clarridgeiae*, *B. elizabethae*, *B. grahamii*, *B. henselae*, *B. koehlerae*, *B. quintana*, *B. volans* and *B. washoensis* using real-time PCR (detection in FAM channel, 530 nm). It allows the rapid and sensitive detection of *Bartonella* from DNA samples purified from blood, tissue, joint fluid, cerebrospinal fluid, pericardial effusions, lymph node aspirate and formalin-fixed paraffin-embedded tissues (e.g. with QIAamp DNA Mini Kit).

PCR-platforms: BactoReal® Kit *Bartonella* spp. 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 *Bartonella* spp. has a sensitivity of approx. 10 target copies of *B. henselae* per PCR-reaction. This test detects *B. clarridgeiae*, *B. elizabethae*, *B. grahamii*, *B. henselae*, *B. koehlerae*, *B. quintana*, *B. volans* and *B. washoensis*.

Bartonella rochalimae, *B. vinsonii* and *B. bovis* are detected with very low sensitivity. *Bartonella bacilliformis* is not detected.

References: Chomel BB, Kasten RW. 2010. Bartonellosis, an increasingly recognized zoonosis. J. Appl. Microbiol. 109:743-750.

<p>Detection of <i>Bartonella</i> spp.</p>	<p>Detection of internal positive control CR-3</p>	<p>Detection of internal positive control CR-1</p>
		
<p>ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of <i>B. henselae</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>B. henselae</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>B. henselae</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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