

# BactoReal® Kit

## *Bordetella bronchiseptica*



For veterinary use only

### BactoReal® Kit *Bordetella bronchiseptica*

Order no.	Reactions	Pathogen	Internal positive control
DVEB02413	100	FAM channel	Cy5 channel
DVEB02453	50	FAM channel	Cy5 channel
DVEB02411	100	FAM channel	VIC/HEX channel
DVEB02451	50	FAM channel	VIC/HEX channel

#### Kit contents:

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



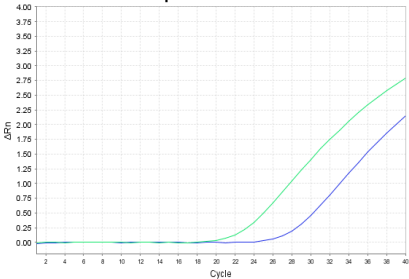
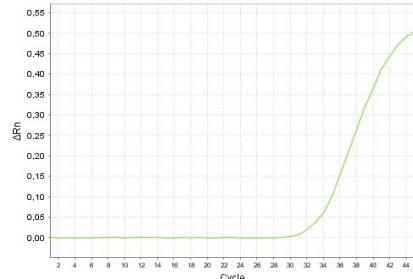
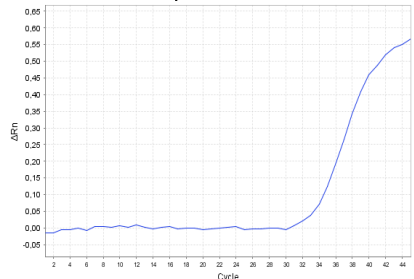
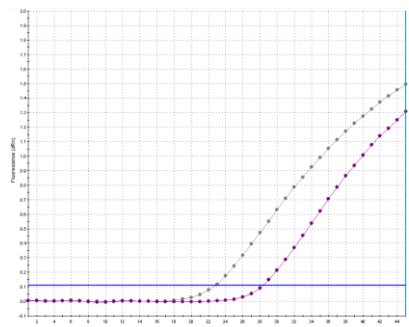
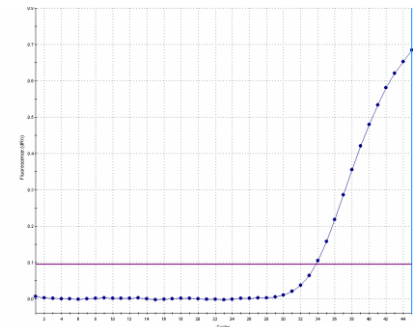
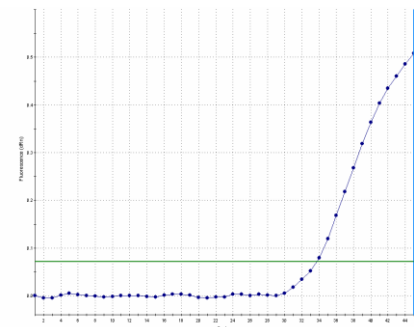
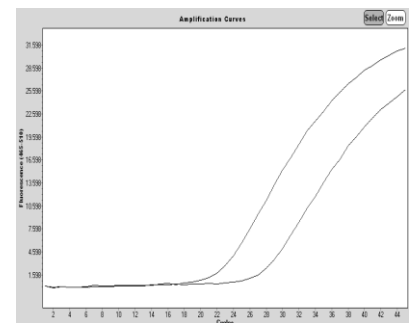
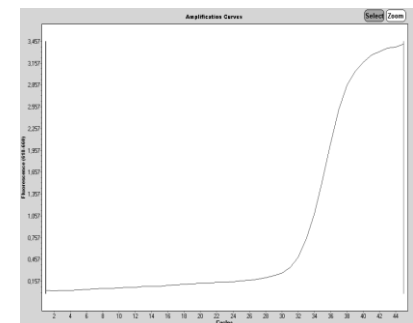
**Background:** *Bordetella bronchiseptica* is a gram-negative bacterium found as a normal inhabitant of the respiratory tract in a variety of animals such as dogs, pigs, some rodents, as well as humans. In some cases it causes pneumonia, canine infectious tracheobronchitis (kennel cough), bronchopneumonia in cats, and atrophic rhinitis in pigs. It is widely distributed in the swine population. Here, some strains cause a mild and non progressive rhinitis that heals spontaneously. However if toxigenic pasteurella are present in the herd then a combination of the two organisms can produce severe progressive rhinitis (PAR). *Bordetella bronchiseptica* can also be a secondary opportunist invader in pneumonia.

**Description:** BactoReal® Kit *Bordetella bronchiseptica* is based on the amplification and detection of the *bfrA* gene of *B. bronchiseptica* using real-time PCR. It allows the rapid and sensitive detection of the *bfrA* gene of *B. bronchiseptica* from samples purified from the respiratory tract (e.g. with the QIAamp DNA Mini Kit).

**PCR-platforms:** BactoReal® Kit *Bordetella bronchiseptica* 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 *Bordetella bronchiseptica* has an analytical sensitivity of one target copy of *B. bronchiseptica* DNA/PCR. It was tested on 11 *B. bronchiseptica* isolates and on several different bacterial isolates (*Bordetella holmesii*, *Bordetella parapertussis*, *Bordetella pertussis*, *Escherichia coli*, *Mycoplasma gallisepticum*, *Mycoplasma hyopneumoniae* and *Mycoplasma synoviae*). No cross reactions were observed.

**References:** Zhao Z, Wang C, Xue Y, Tang X, Wu B, Cheng X, He Q, Chen H. 2011. The occurrence of *Bordetella bronchiseptica* in pigs with clinical respiratory disease. Vet J. 188:337-40.

Detection of <i>Bordetella bronchiseptica</i>	Detection of internal positive control CR-3	Detection of internal positive control CR-1
<p><b>Amplification Plot</b></p>  <p><b>ABI Prism® 7500:</b> FAM channel, 530 nm 1:10 serial dilution of <i>B. bronchiseptica</i> DNA</p>	<p><b>Amplification Plot</b></p>  <p><b>ABI Prism® 7500:</b> Cy5 channel, 667 nm Internal positive control</p>	<p><b>Amplification Plot</b></p>  <p><b>ABI Prism® 7500:</b> VIC channel, 554 nm Internal positive control</p>
 <p><b>Mx3005P®:</b> FAM channel 1:10 serial dilution of <i>B. bronchiseptica</i> DNA</p>	 <p><b>Mx3005P®:</b> CY5 channel Internal positive control</p>	 <p><b>Mx3005P®:</b> HEX channel Internal positive control</p>
 <p><b>LightCycler® 480:</b> FAM channel 1:10 serial dilution of <i>B. bronchiseptica</i> DNA</p>	 <p><b>LightCycler® 480:</b> 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](http://www.ingenetix.com))