

BactoReal® Kit

Brachyspira pilosicoli



For veterinary use only

BactoReal® Kit *Brachyspira pilosicoli*

Order no.	Reactions	Pathogen	Internal positive control
DVEB01213	100	FAM channel	Cy5 channel
DVEB01253	50	FAM channel	Cy5 channel
DVEB01211	100	FAM channel	VIC/HEX channel
DVEB01251	50	FAM channel	VIC/HEX channel

Kit contents:

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



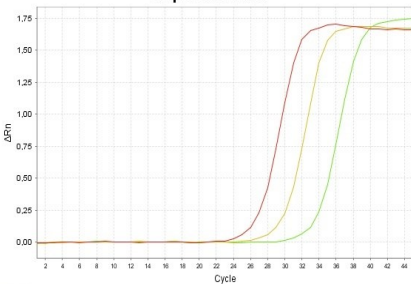
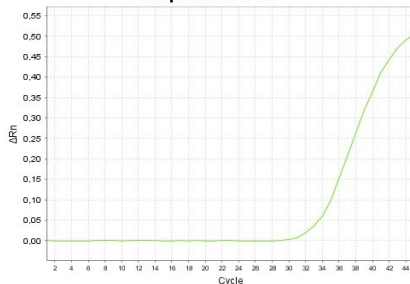
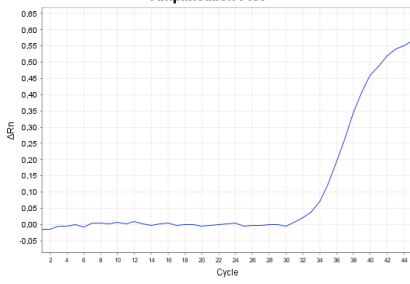
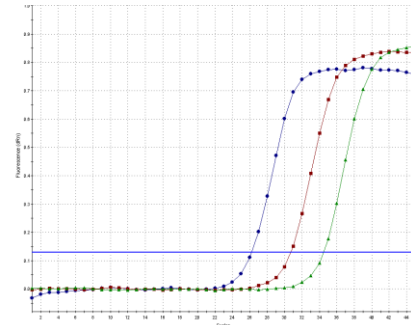
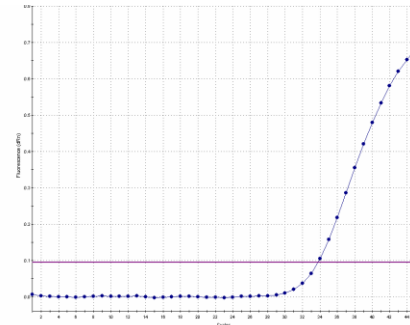
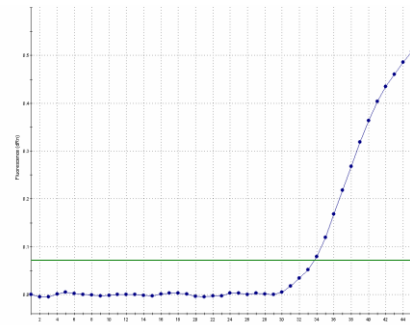
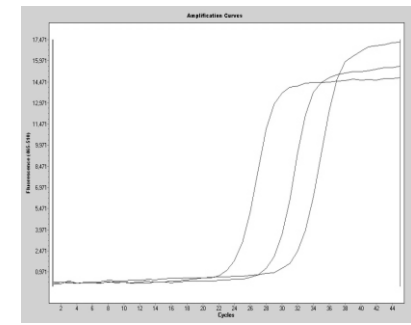
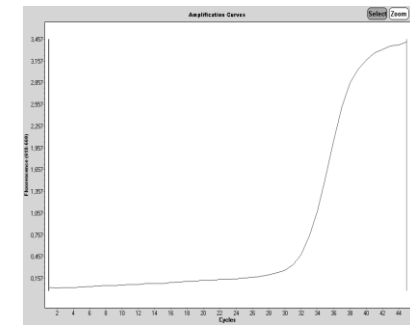
Background: *Brachyspira pilosicoli* (previously called *Serpulina pilosicoli*) is an anaerobic intestinal spirochaete. This bacterium colonizes the large intestine of various species, including humans. It is the etiologic agent of human and animal intestinal spirochetosis and is rarely implicated as a cause of bacteremia. For example, it is the causative agent of porcine colonic spirochaetosis (PCS). *Brachyspira pilosicoli* is an anaerobic bacterium but is aerotolerant due, at least in part, to high NADH oxidase activity.

Description: BactoReal® Kit *Brachyspira pilosicoli* is based on the amplification and detection of the *nox* gene of *B. pilosicoli* using real-time PCR. It allows the rapid and sensitive detection of the *nox* gene of *B. pilosicoli* from DNA samples purified from faecal samples, or biopsies of the intestinal mucosa. *Brachyspira pilosicoli* DNA can be recovered efficiently from faecal samples using the QIAamp DNA Stool Mini Kit, and from biopsies using the QIAamp DNA Mini Kit extraction methods, for example.

PCR-platforms: BactoReal® Kit *Brachyspira pilosicoli* 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 *Brachyspira pilosicoli* has an analytical sensitivity of 10 target copies/reaction. The limit of detection (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) of 25 target copies/reaction was determined by several replicates around the detection limit. The kit is specific for *B. pilosicoli*. Specificity was tested on isolates of *B. hyodysenteriae*, *E. coli*, *H. parasuis*, *L. intracellularis*, *L. innocua*, *L. monocytogenes*, *P. multocida*, *S. aureus*, *S. agalactiae* and *S. pyogenes*. No cross reactions were observed. 18 field samples were tested and correctly analysed.

References: Atyeo, R. F., T. B. Stanton, N. S. Jensen, D. S. Suriyaarachichi, and D. J. Hampson. 1999. Differentiation of *Serpulina* species by NADH oxidase gene (*nox*) sequence comparisons and *nox*-based polymerase chain reaction tests. *Vet. Microbiol.* 67:47–60.

Detection of <i>Brachyspira pilosicoli</i>	Detection of internal positive control CR-3	Detection of internal positive control CR-1
<p style="text-align: center;">Amplification Plot</p>  <p>ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of <i>B. pilosicoli</i> DNA</p>	<p style="text-align: center;">Amplification Plot</p>  <p>ABI Prism® 7500: Cy5 channel, 667 nm Internal positive control</p>	<p style="text-align: center;">Amplification Plot</p>  <p>ABI Prism® 7500: VIC channel, 554 nm Internal positive control</p>
 <p>Mx3005P®: FAM channel 1:10 serial dilution of <i>B. pilosicoli</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. pilosicoli</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)