

# BactoReal<sup>®</sup> Kit Footrot



For veterinary use only

BactoReal <sup>®</sup> Kit Footrot			
Order no.	Reactions	Pathogen	Internal positive control
DVEB06813	100	FAM + VIC/HEX channel	Cy5 channel
DVEB06853	50	FAM + VIC/HEX channel	Cy5 channel

**Kit contents:**

- Detection assay for *Fusobacter necrophorum* subsp. *necrophorum* and *Dichelobacter nodosus*
- Detection assay for internal positive control (control of amplification)
- DNA reaction mix (contains a highly purified Taq Polymerase for rapid hot-start PCR, dNTPs with dUTP and Uracil-N glycosylase (UNG) to eliminate amplicon carryover, ROX™ dye (passive reference) and buffer components – additives optimized to handle RT-PCR inhibitors)
- Positive control for *Fusobacter necrophorum* subsp. *necrophorum* and *Dichelobacter nodosus*
- Water



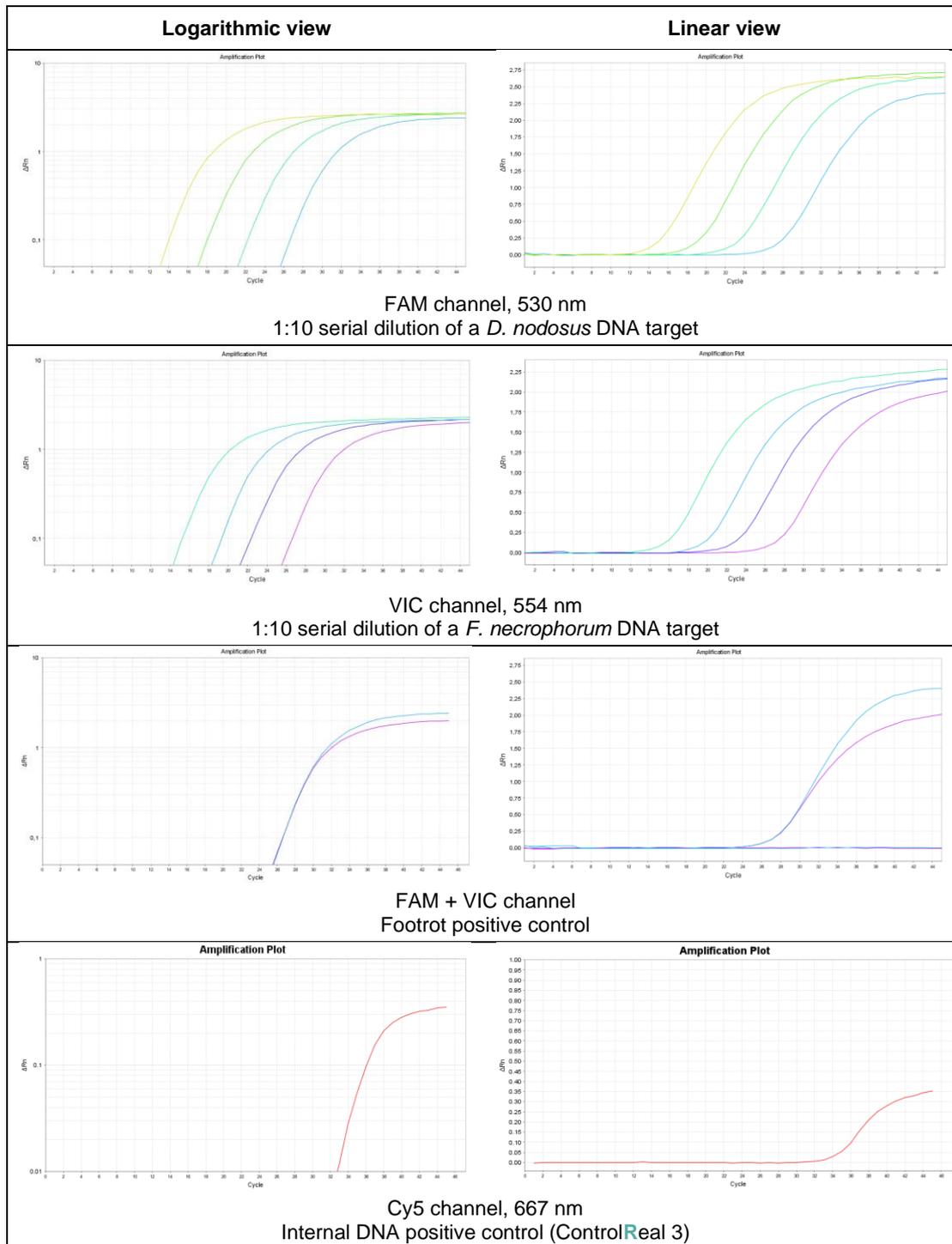
**Pathogen information:**

Footrot (infectious pododermatitis), is a hoof infection commonly found in sheep, goats, and cattle. It is responsible for the majority of cases of lameness in sheep. In sheep, there are two types of bacteria involved in causing footrot. *Dichelobacter nodosus* is the main cause of the disease, while *Fusobacterium necrophorum* is an associated pathogen. The two usually have a synergistic effect together. *D. nodosus* is an anaerobic, non-sporulating, gram-negative bacterium. *F. necrophorum*, which is always present in the atmosphere, is an obligate anaerob, gram-negative bacterium and produces a number of exotoxins that damage the hoof of the animal. *Fusobacterium necrophorum* is classified into subsp. *necrophorum* and subsp. *funduliforme*. Replication of the bacteria and disease transmission usually occur under humid and hot weather conditions that are typical of the rainy season.

**Description:** BactoReal<sup>®</sup> Kit Footrot is based on the amplification and detection of the pnpA gene of *Dichelobacter nodosus* (FAM channel) and the gyrB gene of *Fusobacter necrophorum* subsp. *necrophorum* (VIC channel) using real-time PCR. It allows rapid and sensitive detection of both pathogens from biopsies and swabs (e.g. with the QIAamp<sup>®</sup> DNA Mini Kit, QIAGEN).

**PCR-platforms:** BactoReal<sup>®</sup> Kit Footrot has been developed for the Applied Biosystems<sup>®</sup> 7500 instrument (Thermo Fisher Scientific), LightCycler<sup>®</sup> 480 (Roche) and Mx3005P<sup>®</sup> QPCR System (Agilent), but is compatible with other real-time PCR instruments.

**Sensitivity and specificity:** BactoReal<sup>®</sup> Kit Footrot detects at least 50 target copies/PCR reaction. The kit is specific for *Dichelobacter nodosus* and *Fusobacter necrophorum* subsp. *necrophorum*. It does not detect the subspecies *Fusobacterium necrophorum* subsp. *funduliforme*, which is generally considered to be less virulent.



**BactoReal®, ViroReal®, MycoReal and ParoReal Kits run under the same thermal cycling conditions.  
DNA and RNA 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))**