

BactoReal® Kit

Actinobacillus pleuropneumoniae



For veterinary use only

BactoReal® Kit <i>Actinobacillus pleuropneumoniae</i>			
Order no.	Reactions	Pathogen	Internal positive control
DVEB02013	100	FAM channel	Cy5 channel
DVEB02053	50	FAM channel	Cy5 channel
DVEB02011	100	FAM channel	VIC/HEX channel
DVEB02051	50	FAM channel	VIC/HEX channel

Kit content:

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



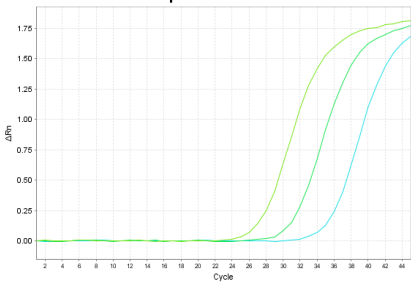
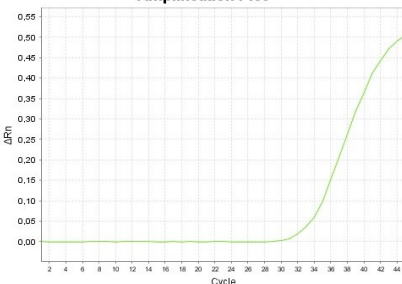
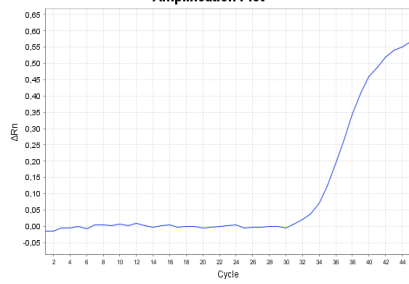
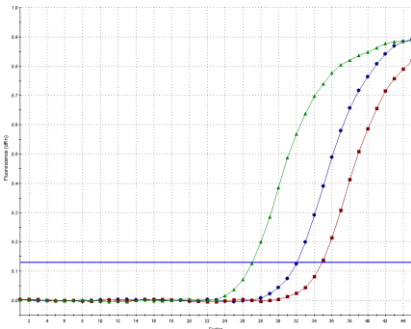
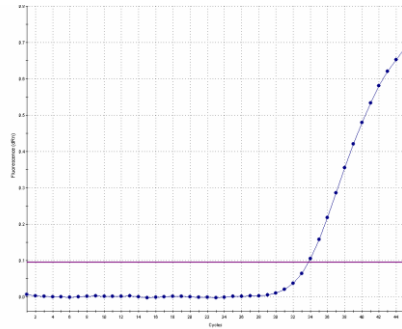
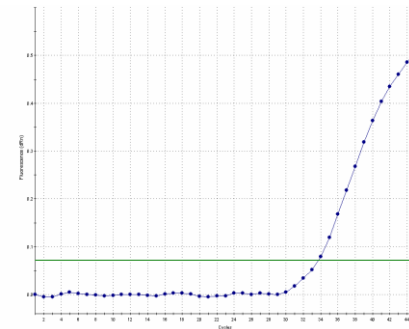
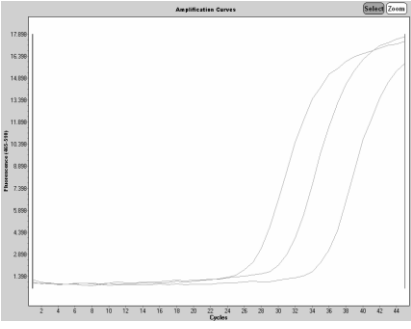
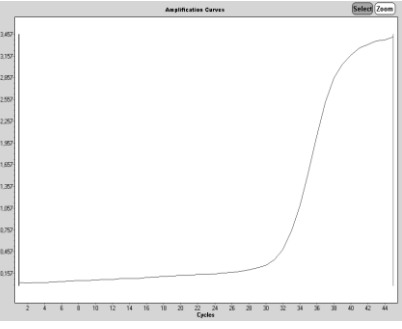
Background: *Actinobacillus pleuropneumoniae* (APP) causes respiratory disease in swine (pig haemorrhagic pleuropneumonia, actinobacillosis). It is a gram-negative coccobacillus respiratory pathogen. Clinical signs of the acute disease are dyspnea, coughing, anorexia, depression, fever and sometimes vomiting. The disease can progress very rapidly and death can occur within a few hours. Chronic infections are characterized by cough and pleuritis. Many herds are infected with APP without presenting any clinical evidence of the disease. Carrier pigs harbour APP in their nasal cavities and/or tonsils.

Description: BactoReal® Kit *Actinobacillus pleuropneumoniae* is based on the amplification and detection of the *apxIVA* gene of *A. pleuropneumoniae* using real-time PCR. It allows the rapid and sensitive detection of *A. pleuropneumoniae* from DNA samples purified from tissues such as lung, tonsil, etc (e.g. with the QIAamp DNA Mini Kit).

PCR-platforms: BactoReal® Kit *Actinobacillus pleuropneumoniae* 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 *Actinobacillus pleuropneumoniae* has a sensitivity of 10 target copies/PCR reaction. The limit of detection (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) is 18 target copies/reaction and was determined by several replicates around the detection limit. The kit is specific for *A. pleuropneumoniae*. Specificity was tested on isolates of *H. influenzae*, *H. parasuis*, *P. multocida*, *M. hyorhinis*, *M. hyopneumoniae*, *L. monocytogenes*, *S. aureus* and *L. intracellularis*. No cross reactions were observed. 13 field samples were analysed and the pathogen correctly identified.

References: Bossé JT, Janson H, Sheehan BJ, Beddek AJ, Rycroft AN, Kroll JS, Langford PR. 2002. *Actinobacillus pleuropneumoniae*: pathobiology and pathogenesis of infection. *Microbes Infect.* 4:225-235.

<p style="text-align: center;">Detection of <i>A. pleuropneumoniae</i></p> <p style="text-align: center;">Amplification Plot</p>  <p>ABI Prism® 7500: FAM channel, 530 nm 1:10 serial dilution of <i>A. pleuropneumoniae</i> DNA</p>	<p style="text-align: center;">Detection of internal positive control CR-3</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;">Detection of internal positive control CR-1</p> <p style="text-align: center;">Amplification Plot</p>  <p>ABI Prism® 7500: VIC channel, 554 nm Internal positive control</p>
<p style="text-align: center;">Mx3005P®: FAM channel</p>  <p>1:10 serial dilution of <i>A. pleuropneumoniae</i> DNA</p>	<p style="text-align: center;">Mx3005P®: CY5 channel</p>  <p>Internal positive control</p>	<p style="text-align: center;">Mx3005P®: HEX channel</p>  <p>Internal positive control</p>
<p style="text-align: center;">LightCycler® 480: FAM channel</p>  <p>1:10 serial dilution of <i>A. pleuropneumoniae</i> DNA</p>	<p style="text-align: center;">LightCycler® 480: Cy5 channel</p>  <p>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)