

# BactoReal® Kit *Lawsonia intracellularis*



For veterinary use only

## BactoReal® Kit *Lawsonia intracellularis*

Order no.	Reactions	Pathogen	Internal positive control
DVEB01313	100	FAM channel	Cy5 channel
DVEB01353	50	FAM channel	Cy5 channel
DVEB01311	100	FAM channel	VIC/HEX channel
DVEB01351	50	FAM channel	VIC/HEX channel

### Kit contents:

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



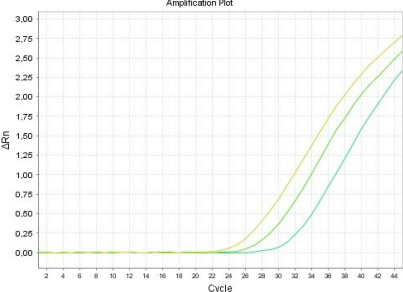
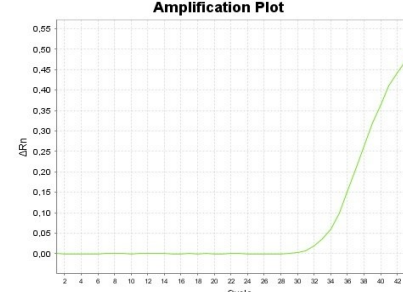
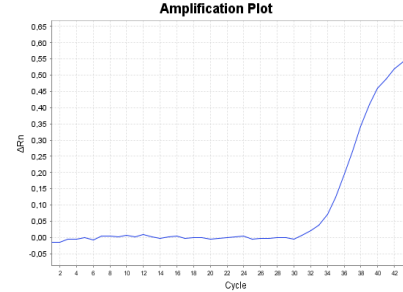
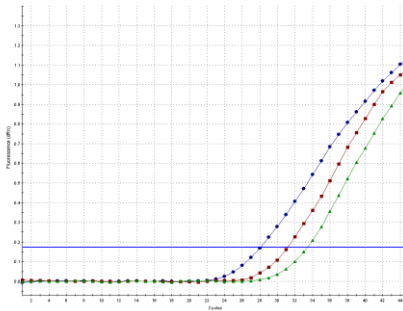
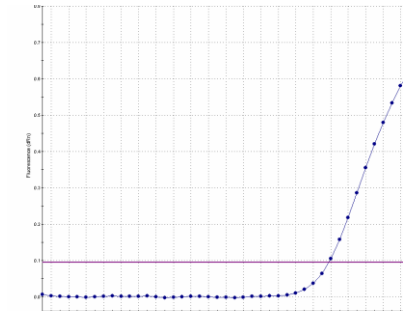
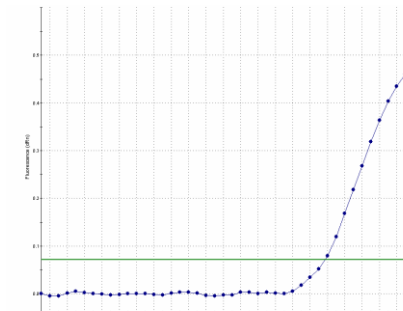
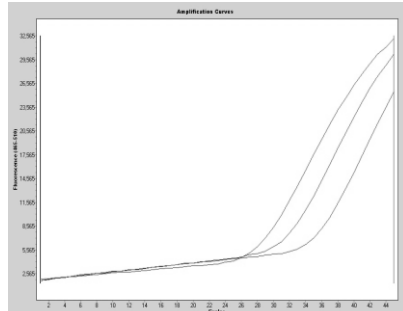
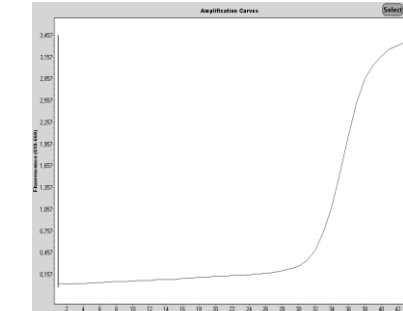
**Background:** *Lawsonia intracellularis* is a Gram-negative and obligate intracellular bacterium and the causative agent of porcine proliferative enteropathy (PPE), which is a transmissible enteric disease of growing pigs characterized by adenomatous proliferation of immature intestinal epithelial cells in the distal small intestines, particularly in the ileum. The infection is widely distributed among pig herds in many pig-producing countries, and affected pigs may exhibit impaired growth and diarrhoea.

**Description:** BactoReal® Kit *Lawsonia intracellularis* is based on the amplification and detection of the 16S rRNA gene of *L. intracellularis* using real-time PCR. It allows the rapid and sensitive detection of the 16S rRNA gene of *L. intracellularis* from DNA samples purified from faecal samples, or biopsies of the mucosal epithelium (e.g. with the QIAamp DNA Mini Kit).

**PCR-platforms:** BactoReal® Kit *Lawsonia intracellularis* 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 *Lawsonia intracellularis* 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) of 53 target copies/reaction was determined by several replicates around the detection limit. Specificity was tested on several different bacterial isolates (*B. hyodysenteriae*, *C. jejuni*, *E. coli* *H. parasuis*, *L. innocua*, *L. monocytogenes*, *Leptospira* sp., *M. hyorhinis*, *M. hyopneumoniae*, *S. aureus*, *S. agalactiae*, *S. pneumoniae*, *S. pyogenes* and *P. multocida*). No cross reactions were observed. A total of 23 field samples were tested and correctly analysed.

**References:** Lindecrona RH, Jensen TK, Andersen PH, Møller K. 2002. Application of a 5' nuclease assay for detection of *Lawsonia intracellularis* in fecal samples from pigs. J. Clin. Microbiol. 40(3):984-987.

<p>Detection of <b><i>Lawsonia intracellularis</i></b></p>	<p>Detection of internal positive control <b>CR-3</b></p>	<p>Detection of internal positive control <b>CR-1</b></p>
		
<p><b>ABI Prism® 7500:</b> FAM channel, 530 nm 1:10 serial dilution of <i>L. intracellularis</i> DNA</p>	<p><b>ABI Prism® 7500:</b> Cy5 channel, 667 nm Internal positive control</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>L. intracellularis</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>L. intracellularis</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))