

BactoReal® Kit European Foulbrood



For veterinary use only

BactoReal® Kit European Foulbrood

Order no.	Reactions	Pathogen	Internal positive control
DVEB05511	100	FAM channel	VIC/HEX channel
DVEB05551	50	FAM channel	VIC/HEX channel
DVEB05513	100	FAM channel	Cy5 channel
DVEB05553	50	FAM channel	Cy5 channel

Kit contents:

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

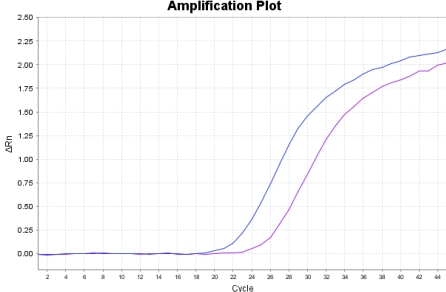
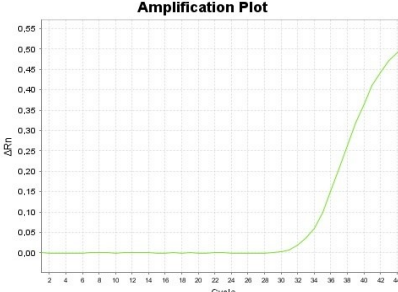
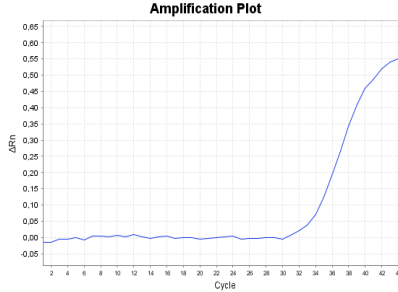
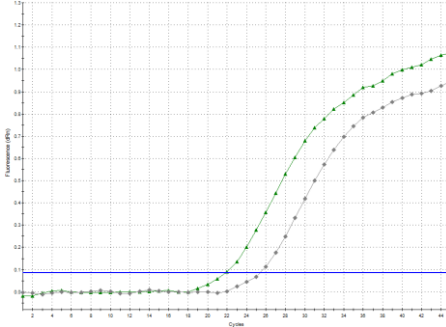
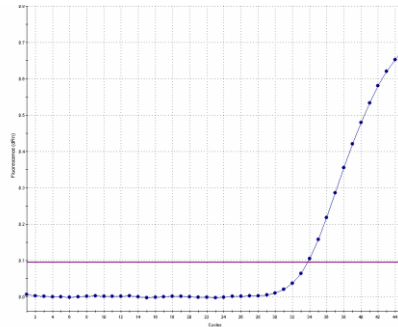
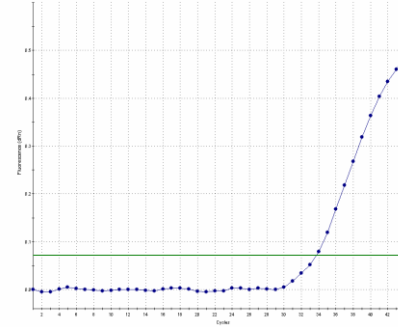
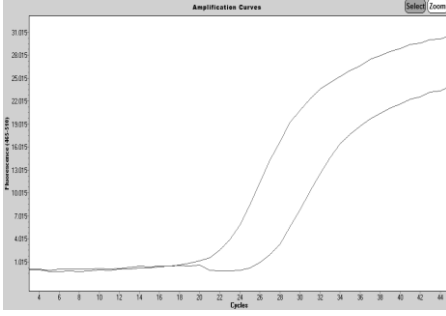
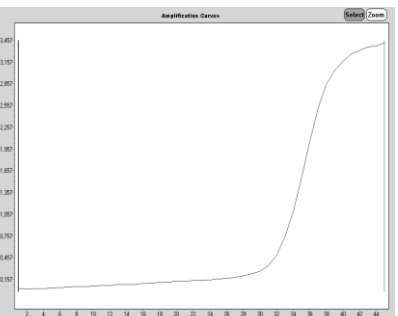


Background: European foulbrood (EFB) is a bacterial brood disease of honey bees caused by the Gram-positive bacterium *Melissococcus plutonius*. The disease occurs throughout the world. It may cause serious losses of brood. Larvae get infected by consuming contaminated food fed by the nurse bees. The bacteria multiply within the larval gut, competing with it for its food. Larvae that die from the disease have been starved of food.

Description: BactoReal® Kit European Foulbrood is based on the amplification and detection of the 16S rRNA gene of *Melissococcus plutonius* using real-time PCR. It allows the rapid and sensitive detection of *Melissococcus plutonius* from DNA samples purified from swabs, tissues, etc. (e.g. with the QIAamp DNA Mini Kit).

PCR-platforms: BactoReal® Kit European Foulbrood 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 European Foulbrood has a sensitivity of 5 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 36 target copies/reaction was determined by several replicates around the detection limit. The kit is specific for *Melissococcus plutonius*.

<p>Detection of <i>Melissococcus plutonius</i></p>	<p>Detection of internal positive control CR-3</p>	<p>Detection of internal positive control CR-1</p>
		
<p>ABI Prism® 7500: FAM channel, 530 nm 1:10 dilution of <i>Melissococcus plutonius</i> DNA</p>	<p>ABI Prism® 7500: Cy5 channel, 667 nm Internal positive control</p>	<p>ABI Prism® 7500: VIC channel, 554 nm Internal positive control</p>
		
<p>Mx3005P®: FAM channel 1:10 dilution of <i>Melissococcus plutonius</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 dilution of <i>Melissococcus plutonius</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)