

BactoReal® Kit American Foulbrood



For veterinary use only

BactoReal® Kit American Foulbrood			
Order no.	Reactions	Pathogen	Internal positive control
DVEB05413	100	VIC/HEX channel	Cy5 channel
DVEB05453	50	VIC/HEX channel	Cy5 channel

Kit contents:

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

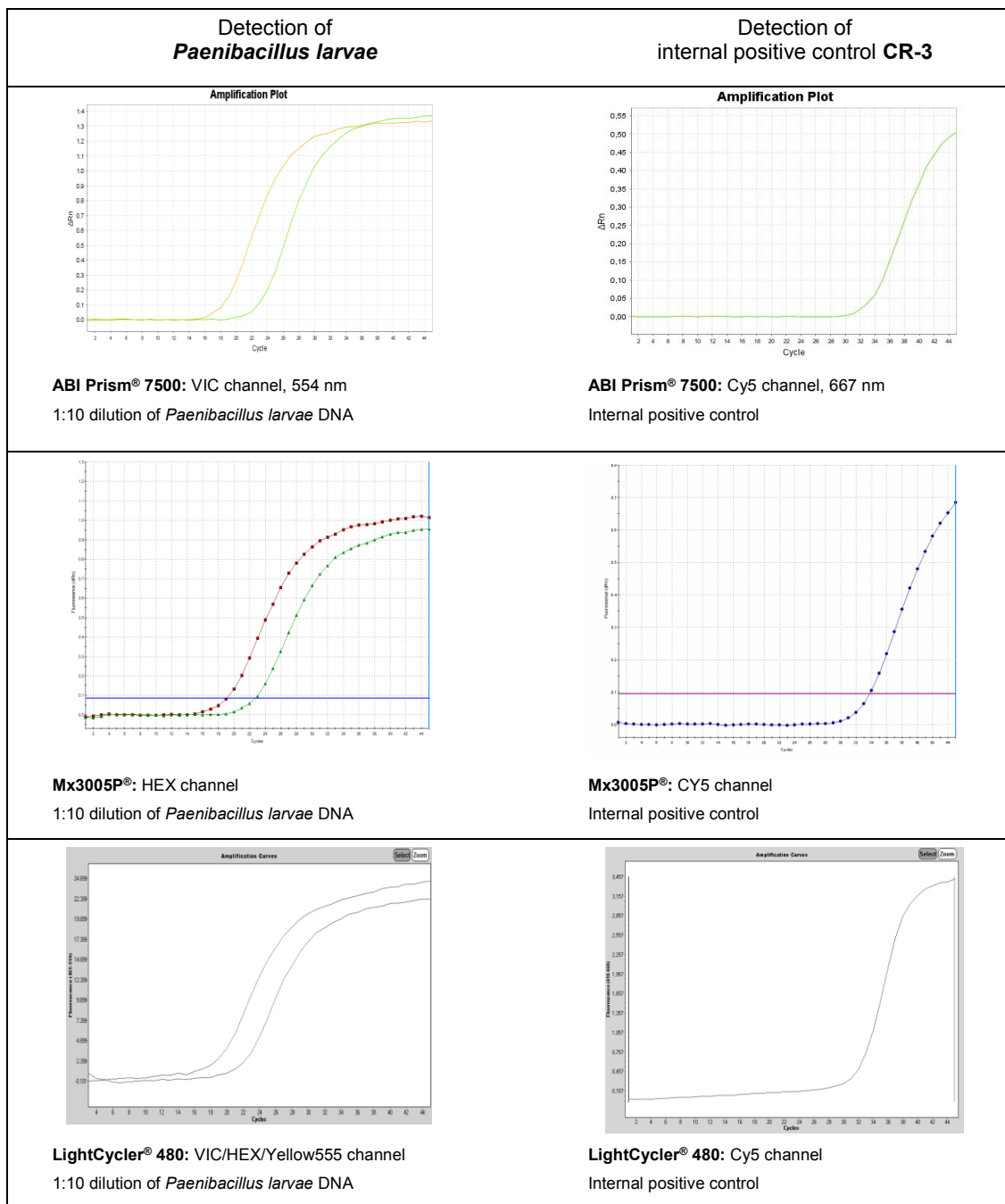


Background: American foulbrood (AFB) is a bacterial brood disease of honey bees caused by the Gram-positive and spore-forming bacterium *Paenibacillus larvae*. The disease is transferred and initiated only by the spore stage of the bacterium. Young bee larvae are infected by spores, then the spores germinate in the gut of the larva and the vegetative form of the bacteria begins to grow, taking its nourishment from the larva. Infected larvae normally die after their cell is sealed. The vegetative form of the bacterium produces many millions of spores which may remain dormant for many years.

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

PCR-platforms: BactoReal® Kit American 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 American Foulbrood has a sensitivity of 40 target copies/PCR reaction. The LoD95 (LoD95 = smallest number of copies of target DNA which can be detected in 95% of cases) of 58 target copies/reaction was determined by several replicates around the detection limit. The kit is specific for *Paenibacillus larvae*.



**BactoReal®, MycoReal, ParoReal and ViroReal® Kits run with the same thermal cycling conditions.
RNA and DNA material can be analysed in one PCR run.**

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