

## BRUCELLA DETECTION KIT

### Description:

Brucellosis causes high morbidity in humans. The disease is endemic in large areas of the planet. Germs of the genus *Brucella* are capable of surviving and even multiplying within the cells of the phagocytic mononuclear system, which explains the marked tendency of the disease to produce complications and even relapses once the treatment has concluded. Some of the complications of brucellosis are very serious and can lead to the death of the patient. The occurrence of complications has been shown to be significantly related to a delay in the diagnosis of infection. Although there is currently a large battery of serological methods applicable to the diagnosis of human brucellosis, all of them suffer from important limitations. Thus, the present invention relates to a set of primers, probe, method and molecular diagnostic kit for *Brucella* spp., And more specifically for the detection of specific DNA of germs of the genus *Brucella* in clinical samples based on amplification and quantification DNA using real-time polymerase chain reaction (PCR). The technique is much more sensitive than conventional PCR, PCR-ELISA (PCR coupled to an enzyme-linked immunosorbent assay), bacteriological methods, and more specific than the usual serological methods, allowing its use for the implementation of an easy and fast procedure. of molecular diagnosis of infection by *Brucella* spp. in blood serum and in other clinical samples.

### Keywords:

[Diseases](#), [Pcr Techniques](#), [Brucella Spp](#), [Brucellosis](#), [Diagnosis](#)

### Sectors:

[Biotechnology](#), [Health](#)

### Areas:

[Health Sciences](#), [Diagnosis](#), [Biotechnology](#), [Genetics](#)



### Advantages:

The proposed technique is significantly more sensitive and specific than the known methods (bacteriological methods, serological methods, PCR-ELISA) and has the following advantages: - The detection of the PCR products is fast, easy and objective, allowing an easy and fast diagnosis of the infection; - It does not require the use of electrophoresis in agarose gels, ultraviolet light, or the use of toxic agents such as ethidium bromide, or digoxigenin-ELISA for the detection of the products obtained; - Because real-time PCR is a closed system, which does not require manipulation of the PCR products, once the amplification is completed, to know the results, the risk of contamination by carryover is significantly reduced; - It allows the monitoring of the response to treatment and the early detection of relapses; - Avoid the risk of manipulation of the germ by laboratory personnel; - Allows the simultaneous handling of a high number of samples; - It is capable of being automated, which makes it very attractive for use in any clinical laboratory.

### Uses and Applications:

Its applications are mainly intended for the health and biomedical sectors, since it allows the detection of the presence of *brucella* spp., Being useful for its use in the improvement of clinical diagnostic methods.

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