



Filters

SKU: ADIFIL100

Product Categories: [Bio X](#), [PCR](#), [Veterinaria](#)

Product Page: <http://vacunek.com/shop/veterinaria/filters/>

Product Summary

ADIFIL100

Product Description

1. Purpose of the test

ADIAVET™ PARATB REAL TIME kit is intended to detect Mycobacterium avium subsp paratuberculosis

(PARATB) using real-time Polymerase Chain Reaction (PCR) technology from faeces, tissue and milk

specimens of bovine, ovine and caprine, as well as from environmental specimen and bacterial culture.

2. Pathogen

Mycobacterium avium subsp. paratuberculosis is the etiological agent of bovine paratuberculosis. The

disease is characterized by diarrhoeas, a decrease of the production level (milk, reproduction) and a

loss of weight leading to death.

In 1898, Johne and Frothingham detect acid-fast bacillus in intestinal mucosa of affected animals.

These bacteria, similar to tuberculosis bacillus, are responsible for a thickening of intestinal mucosa corresponding to an enteropathy called paratuberculosis or Johne's disease (Thorel and al. , 1990). The incubation of illness is slow (between 2 and 5 years) so the majority of affected animals present clinical symptoms between 2 and 7 years. The most important mode of transmission of paratuberculosis is the faecal-oral route, although transmission can occur in utero, via infected semen, colostrum and milk. In the infected animal organisms, the bacteria can then spread through the macrophages. Affected animals can shed varying numbers of *M. paratuberculosis* organisms in their faeces (from some bacteria / g of faecal material to 10⁴- 10¹⁰germs / g at the clinical stage). Faecal culture for the causative organisms is the definitive method of diagnosis but it is very slow, requiring 6-8 weeks. Immunologically-based tests for Johne's disease are rapid but lack of specificity and sensitivity. A shift of biologists of St George's Hospital of London conducted by the Dr J. Hermon-Taylor identified in 1985 a repetitive genomic fragment called IS900, specific of *M. paratuberculosis* strains (Green and al. 1990). Since this sequence has been used as probe in molecular diagnostic test in particular for PCR test (Guillou and al., 1993).

3. Description and purpose of the test

This test is based on enzymatic gene amplification or PCR technology. Amplified products are detected in real-time thanks to a specific labelled hydrolysis probe (5'-

exonuclease technology).

The ADIAVET™ PARATB REAL TIME kit enables the simultaneous detection of:

- Mycobacterium avium subsp paratuberculosis (probe labelled in FAM),
- External Control (probe labelled with a fluorochrome with the same spectra as VIC and HEX).

According to the extraction protocol retained, two external controls are available:

- An External Positive Control of extraction named “EPC-Ext”, it will be added during the extraction step, will follow all the step of extraction and will check the whole extraction process and the absence of inhibitors.

or

- An External Positive Control of amplification named “EPC-Amp”; it will be added in the “A5 solution “ before the amplification step and will only control the absence of amplification inhibition.

ADIAGENE recommends DNA purification kits coming from ADIAGENE, Qiagen, Macherey-Nagel

suppliers. Other purification kits can be used if they have been validated by the user.