



PCR Test for the Detection of Mycoplasma hyopneumoniae

SKU: 418022

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

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<http://vacunek.com/shop/veterinaria/pcr-test-for-the-detection-of-mycoplasma-hyopneumoniae/>

Product Summary

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Product Description

1. Purpose of the test

ADIAVET™ M.HYOP REAL TIME kit is intended to detect Mycoplasma hyopneumoniae using real-time Polymerase Chain Reaction (PCR) technology from tissue, tracheobronchiolar washing and oral fluid specimens of pig, as well as from bacterial culture.

2. Pathogen

Mycoplasma hyopneumoniae is the primary agent of enzootic porcine pneumonia (EPP), one of the most important direct or indirect causes of respiratory infectious diseases. The

disease has a world wide distribution and causes considerable economic losses in swine production due to reduce growth rate and feed conversion efficiency. *M. hyopneumoniae* has a specific pathogenicity and leads to secondary infection by other pathogenic bacteria such as *Pasteurella multocida* or *Actinobacillus pleuropneumoniae*. The contamination occurs at each stage of piglet production, from sows to piglets but also from pigs themselves by direct contact (Kobisch and Friis, 1996).

Diagnosis:

The isolation of *M. hyopneumoniae* by culture is not currently performed by diagnostic laboratories because it is tedious and time consuming and may require as long as 1 month (Friis, 1975). Moreover, in the respiratory tract of piglets it is often associated with bacteria (*P. multocida*, *A. pleuropneumoniae*) as well as other mycoplasma species (*M. hyorhinis* and *M. flocculare*). Two methods are currently used for EPP diagnosis: serological analysis such as blocking ELISA or detection of the organism on lung sections by a direct immunofluorescent test using polyclonal antibodies (L'Ecuyer et Boulanger, 1970).

Many authors have described *M. hyopneumoniae* detection by PCR test. This technique allowed the specific and rapid detection of mycoplasma directly on live pigs (Mattsson et al., 1995; Verdin et al., 1996; Baumeister et al., 1998). The PCR test allowed the detection of *M. hyopneumoniae* on seropositive pigs (infected or vaccinated pigs).

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™ M.HYOP REAL TIME kit enables the simultaneous detection of:

- Mycoplasma hyopneumoniae with probe labelled in FAM.
- The RNase P, an internal control of extraction and amplification steps specific from an endogenous DNA (probe labelled with a fluorochrome read in the same spectra as VIC and HEX).

ADIAGENE recommends using this test with DNA purification kits (Qiagen or Macherey-Nagel). Other purification kits can be used if they have been validated by the user.