



Mycoplasma Haemofelis PCR

Mycoplasma haemofelis is a blood parasite of cats that can cause a severe regenerative anaemia. This parasite was formerly known as *Haemobartonella felis* but is now classified as a mycoplasma. Although infected cats may not show signs of clinical disease, in association with other agents (or immunosuppression) *M. haemofelis* can cause significant disease including potentially fatal anaemia. Common symptoms are intermittent fever, lack of appetite, depression, lethargy and pallor.

A related organism of lesser pathogenicity, *Candidatus M. haemominutum*, is also detected and reported separately in this assay. The pathogenicity of *C. M. haemominutum* is not fully understood. However, it is recommended that cats positive to either organism and showing clinical signs be treated. These mycoplasmas should be considered as potential complications in cats that have been shown to be positive for Feline Immunodeficiency Virus or Feline Leukaemia Virus.

The detection of *Mycoplasma* in a blood sample should not necessarily be interpreted as that organism being the primary cause of the disease. Other causes of anaemia should be excluded including blood loss into the gut, effusions, neoplasia and chronic viral infections.

The frequency of *M. haemofelis* infection in a normal cat population, including *Candidatus Mycoplasma haemominutum*, has been reported to be as high as 40%. Published figures vary greatly as a result of the lack of sensitivity of the conventional blood smear method and differences in methodologies of the PCR assays published to date.

Traditionally, *M. haemofelis* has been detected by staining freshly prepared blood smears with Wright-Giemsa stain and examining for the presence of parasites on the erythrocytes. This often gives an equivocal result, as the parasites tend to fall off the erythrocytes soon after the blood is taken making an accurate diagnosis difficult. PCR testing is significantly more sensitive and specific than examination of a blood smear.

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Species:
Feline



Specimen:
Whole blood
(minimum 1 ml)



Container:
EDTA (purple
top) tube

Continued

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Collection protocol:

Standard venepuncture

References:

Messick JB: New perspectives about Hemotrophic mycoplasma (formerly, *Haemobartonella* and *Eperythrozoon* species) infections in dogs and cats. *Vet Clin Small Animal* (2003) 33: 1453-1465.

Tasker S, Binns SH, Day MJ et al.: Use of a PCR assay to assess the prevalence and risk factors for *Mycoplasma haemofelis* and '*Candidatus Mycoplasma haemominutum*' in cats in the United Kingdom. *Vet Record* (2003) 152(7): 193-198.

Messick JB: Hemotrophic mycoplasmas (hemoplasmas): a review and new insights into pathogenic potential. *Vet Clin Path* (2004) 33(1): 2-13.

Clark P, Foster SF and Spencer PB: Detection of *Haemobartonella felis* (*Candidatus Mycoplasma haemofelis*) in Australia that is similar to the 'Ohio' strain. *Aust Vet J* (2002) 80(11): 703-704.

Feldman BF, Zinkl JG and Jain N: Schalm's Veterinary Hematology, (2000) 5th Edition, Chapter 27 pg 154.

Neimark H, Johansson KE, Rikihisa Y et al.: Proposal to transfer some members of the genera *Haemobartonella* and *Eperythrozoon* to the genus *Mycoplasma* with descriptions of '*Candidatus Mycoplasma haemofelis*', '*Candidatus Mycoplasma haemomuris*', '*Candidatus Mycoplasma haemosuis*' and '*Candidatus Mycoplasma wenyonii*'. *Int J Syst Evol Microbiol* (2001) 51(3): 891-899.