

5 important points before testing for **Canine Babesiosis**

Introduction:

- Canine babesiosis is a worldwide, primarily tick-borne, protozoal disease.
- The disease is predominantly characterized by a direct parasitic and immune-mediated erythrocyte destruction, causing mild to severe systemic clinical manifestations.
- Babesia infections can be acute, subclinical or chronic.
- The infection is more prevalent in certain seasons and geographical regions with high prevalence of tick vector.
- Canine babesiosis is frequently accompanied by *Ehrlichia canis* and other tick transmitted infections.
- The predominant species known to naturally infect dogs are *B. canis* and *B. vogeli* (large pyriform) and *B. gibsoni* (small pleomorphic).
- Accurate species classification is important for providing the appropriate treatment and is difficult to achieve using serological tests and/or microscopy.
- PCR is considered to be the most sensitive and species specific for the diagnosis of canine Babesiosis.

1

Main features

Haemolytic anemia, thrombocytopenia, fever and splenomegaly are the most predominant features.



2

Accuracy

Accurate detection and species recognition are important for the selection of correct therapy and predicting the course of disease.



3

Blood smear evaluation

Capillary blood from ear prick samples is recommended.

Blood smear is considered to have low sensitivity and is prone to subjective errors in species classification.



4

Serology limitations

False Negative: generation of a detectable level of serum antibody can take up to 10 days post infection.

False Positive: positive antibody test may indicate past exposure rather than present disease.

Inaccurate species classification due to cross reactivity between Babesia species may occur.



5

PCR assays

In clinic PCR tests, such as **PCRrun® detection kits**, provide a rapid, sensitive, and species-specific diagnosis of canine babesiosis in acute and persistent infections, allowing to treat appropriately and effectively.

Endemic Map

Endemic occurrence ●



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