

For veterinary use only



Clinical Guidelines

Leishmania Ab Rapid

Leishmania Ab (Canine Leishmania Antibody)

WHY USE THE Leishmania Ab TEST?

- Canine Leishmaniasis (CL) is a major global zoonosis that is prevalent in Europe, Africa, Asia, and South and Central America. (endemic in >89 countries).
- The course of infection may be different from one individual dog to another, ranging from spontaneous cure to acute evolution that leads to death.

Therefore, **diagnosis should be established as soon as possible**, to improve the prognosis and to avoid both human and dog transmission (from false negative cases) and unnecessary euthanasia (from false-positive cases).

WHAT YOU NEED TO KNOW: CANINE LEISHMANIASIS

- **Incubation Period** varies from 3 months to several years
- **Clinical signs**
 - ✓ These protozoans can present in a wide variety of clinical forms ranging in severity from self-healing **cutaneous leishmaniasis (CL)** to fatal disseminated **visceral leishmaniasis (VL)**.
 - ✓ **Signs:** Enlargement of lymph nodes, dermal abnormalities, reduced appetite, weight loss, chronic enteritis, abnormal enlargement of the spleen & liver, eye disease, hypotrophy muscle, arthritis, neurological manifestation, renal disease
- **Transmission**
 - ✓ by the hematophagous activities of female phlebotomine sand flies (main)
 - ✓ by vertical and venereal transmission
- **Vaccination**
 - ✓ Vaccination can be provided to dogs over 6 months of age. However, there is no currently authorized vaccine that is able to give full protection against infection.
- **Diagnosis**
 - ✓ **Cytology & Histology** ※ Direct observation of the parasite has low sensitivity (a lot of false negative)
 - ✓ **PCR Testing** ※ Aspirates from the bone marrow and lymph nodes are most likely to yield positive results
 - ✓ **Serology** ※ The most commonly used first step through detection of specific antibodies against Leishmania

Antibody response

- ✓ A specific antibody response is detected in dogs **approximately 8-12 weeks after the initial infection**.
- ✓ **DIVA** (Differentiating infected from vaccinated animals)
 - ⇒ **Antibodies induced by vaccination with LIESP/QA-21 are not detected by the anti-kinesin antibody test.**
 - a positive result indicates the presence of antibodies due to infection by the parasite

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WHEN TO USE THE Leishmania Ab Test?

- **Regular check-up**

- ✓ Incubation periods may be very long and subclinical infection may persist for months or years. The antibody test is required to reveal subclinical infection.
- ✓ Testing healthy dogs periodically is important to detect asymptomatic carriers, and to prevent the spread of infection

- **With nonspecific symptoms of CL**

- ✓ Because the clinical findings can be quite variable, they can mimic other diseases and therefore the diagnosis of the disease can be difficult.

- **Treatment monitoring**

- ✓ High antibody levels are usually associated with clinical disease and high parasite burdens.
- ✓ Serological testing can be useful for monitoring infected dogs for changes in disease severity and response to treatment.

- **Check for relapse after recovery**

- ✓ Parasitological cures are rarely achieved, and clinical recurrences in canine Leishmaniasis often occur after therapy.
- ✓ For a more practical approach, serological evaluation of the patient every 6 months provides valuable data for the follow-up of Leishmania cases.



References

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2. BSAVA, Infectious Diseases Factsheet, Leishmania
3. Christine Petersen, University of Iowa, Leishmaniosis in Dogs, MERCK Veterinary Manual