



Leishmania ELISA and Lateral Flow Tests

Diagnosing Leishmania is vital for global health

Leishmaniasis currently affects around 12 million people in 88 countries, all but 16 of which are in the developing world. However, this number is expected to grow due to one of the main problems our generation is facing: climate change. In fact, it has been proven that due to this climate change, Leishmania infections are increasing and they are starting to become endemic in regions where they weren't previously.

Diagnosing asymptomatic animals in Canine Leishmania is crucial for public health, disease control, early treatment, prevention of disease progression, and surveillance purposes. It helps in reducing the burden of Leishmaniasis on both animal and human populations.



Public health concern

Asymptomatic animals can still harbor the Leishmania parasite, which can be transmitted to human.



Disease Control

Asymptomatic animals are reservoirs for the Leishmania parasite, maintaining the cycle of transmission.



Treatment and Management

Early detection of asymptomatic animals allows prompt treatment.



Preventing Disease Progression

Not all asymptomatic animals remain asymptomatic.



Monitoring and Surveillance

Identifying asymptomatic cases helps in monitoring the prevalence and distribution of Leishmania.



Presenting you our protein: rKLi8.3

Gold Standard Diagnostics Madrid, in collaboration with University of Marburg, has developed a new antibody detection test employing an improved recombinant multi-epitope antigen of *Leishmania infantum*. This antigen constitutes a great advancement in *Leishmania* diagnosis.

High specificity (98.3%)

High sensitivity (94.2%)

No cross-reaction with other pathogens

The antigen is present in both the amastigote and promastigote allowing to detect the disease in different stages.

Why serology is the best choice for diagnosis leishmania

Parasite detection do not always correlate with an active infection. In animals, serology is the preferred method for diagnosis, even during the early stages of the disease. Several studies have correlated antibody titres with the prognosis and disease grade of an infected animal, giving more valuable information than the antigen detection itself.

| DISEASE* | SIGNS | Antibody titre |
|---------------------------------|--|----------------|
| STAGE I Mild | Papular dermatitis or localized lymphadenomegaly | Negative-Low |
| STAGE II Moderate | Cutaneous lesions, ulcerations, generalized lymphadenomegaly | Low-High |
| STAGE III Severe | Stage I, II signs + immune-complex deposition signs | Medium-High |
| ≥STAGE IV Verx severe | Stage III signs + pulmonary thromboembolism, nephrotic syndrome, end stage renal disease | Medium-High |

Our ELISA for leishmania

At GSD Madrid, we have pioneered an advanced ELISA test utilizing the rKLi8.3 protein, leveraging its inherent advantages and further enhancing its efficacy through our unparalleled expertise in assay development.

This innovative approach capitalizes on the benefits of the recombinant protein, making our ELISA test a standout choice in the market.

This solution is specifically though for the diagnostic labs as now they can titter the leishmania antibodies with a precision that was unimaginable before. This solution is suitable for all size labs as it developed in a way where the assay can be automated or performed manually.

| | | |
|--------------------------------|---------------|-----------------|
| Ingezim Leishmania 2.0 recomb. | 1 plate/Kit | R.15.LS2.K.1 |
| | 10 plates/Kit | R.15.LS2.K.1/10 |

Key features from our ELISA



Product developed by:





INgezim® Leishma CROM

Gold Standard Diagnostics Madrid, in collaboration with University of Marburg, have developed a new antibody detection test employing an improved recombinant multi-epitope antigen of *Leishmania infantum* for the sensitive and specific detection of canine visceral leishmaniasis in different endemic areas.

Features of INgezim® Leishma CROM:

- **High specificity (no cross-reaction)** with *Trypanosoma brucei*, *Babesia canis*, *Giardia duodenalis*, *Dirofilaria repens*, *Toxocara canis*, *Ehrlichia canis*, *Ancylostoma caninum* and *Anaplasma*.
- **High sensitivity** (94.2%) and **specificity** (98.3%) when compared to Immunofluorescence test (IFT) and maintained in different geographical regions (Europe and Brazil).
- **No cross-reaction** with **vaccinated** animals, allowing the serological differentiation of infected and vaccinated animals.
- **Easy to use** and **stable** results under adverse conditions.
- The assay can be used with whole blood, minimizing sample processing.

Ordering details

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|-----------------------|--------------|---------------|
| INgezim® Leishma CROM | 10 units kit | 15.LSH.K41/10 |
| | 30 units kit | 15.LSH.K41/30 |

Bibliography

- Mahdavi, R.; Martinkovic, F.; Shams-Eldin, H.; Pereira, I.E.; Reis, A.B.; Latz, A.; Heinz, D.; Aira, C.; Fresco-Taboada, A.; Abass, E.; et al. Comparative Study of a Novel Lateral Flow Rapid Test with Conventional Serological Test Systems for the Diagnosis of Canine Leishmaniasis in Croatia and Brazil. *Pathogens* 2024, 13, 109. <https://doi.org/10.3390/pathogens13020109>



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