LC9 / LC13 from *Leishmania chagasi* cross-reactivity studies

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Leishmaniasis is a group of diseases caused by protozoan parasites of *Leishmania* genus. The worst form of this disease is the visceral leishmaniasis, that affect almost 500 000 people worldwide. Visceral leishmaniasis (VL) is provoked mainly by *Leishmania chagasi* (= syn. *Leishmania infantum*) and dogs are the major reservoir in the cycle that culminate in human infection. In this context controlling dog infections is essential for VL surveillance programs. In our previous results we presented two recombinant antigens, LC9 and LC13 that showed by ELISA 95 to100% sensitivity and 92% to 96% specificity. The importance of these antigens for development of a *L. Chagasi* diagnostic assay was demonstrated, but it have to be complemented with a cross-reactivity study. In this context three species very close to tripanosomatide were selected. LC9 and LC13 were assayed using dogs sera positive to *Babesia canis*, *Ehrlichia canis* and *Trypanosoma caninum*. The purified recombinant antigens did not present cross-reactivity with sera from dogs infected with *Trypanosoma caninum*, *Babesia canis* and *Ehrlichia canis*. Cross-reaction was verified with sera from dogs infected with *Leishmania brasiliensis* (11.7% for LC9 and 2.9% for LC13). Based on ELISA results, it is suggested the use of LC9 and LC13 as antigens in an alternative serological assay for diagnostic of canine leishmaniasis.