***Ehrlichia canis* IFA Kit**

(Catalog ECG-120)

Performance Characteristics

SENSITIVITY

The indirect immunofluorescence antibody assay (IFA) for *Ehrlichia canis* was described in the literature in 1972[1] and has served thereafter as a gold standard for serodiagnosis. The Fuller Laboratories test uses the Oklahoma/LSU isolate, grown in the DH82 canine macrophage cell line, as substrate.

Antibody detection becomes detectable at approximately the time most dogs begin showing clinical signs, 21-40 days post infection[1-2] Due to the wide variety of antigen present on the whole organism by the IFA technique, sensitivity is approximately equal to Western immunoblot assay using whole cell lysates[2-5].

SPECIFICITY

There exists modest to strong cross-reactivity with this procedure for the related species *Ehrlichia chaffeensis* and *Ehrlichia ewingii*. These three species cannot be positively differentiated by IFA titer or Western Immunoblot comparisons[4]. Another close relative, *Anaplasma phagocytophila*, is generally 4-16-fold less reactive than against *Ehrlichia canis*. However, tests with high titer sera against other canine bacterial and viral pathogens show no cross reactivity at any level. Rickettsia positive sera show no cross reactivity at any level.

Sera from non-endemic regions were tested in-house, 159 from New York and 120 from Southern California. There were no positives. (100% specific). As the New York sera were from an endemic region for *Anaplasma phagocytophila,* there were found 14 dogs (8.8%) seropositive for this related organism.

References

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