***Babesia microti* IFA Kits**

(Catalog BMG-120 and BMM-120)

Performance Characteristics

SENSITIVITY

The indirect immunofluorescence antibody assay (IFA) for Babesia microti was described in the literature in 1978[1] and has served thereafter as the most common method for serodiagnosis. The Fuller Laboratories test uses Babesia microti-(GI strain)-infected hamster or mouse erythrocytes as the antigen substrate.

Specific IgM antibody is often detectable at the onset of parasitemia, with IgG detection following within 1-2 weeks. Due to the wide variety of antigens present on the whole organism by the IFA technique, sensitivity is approximately equal to Western immunoblot assay using whole cell lysates[4.] Sensitivity of the igM test is 91% and IgG 39% in the acute phase. In convalescent phase sera the sensitivity rises to a range of 88-96%, depending upon the testing center performing the assay[1-4]..

SPECIFICITY

There have been no reports of cross-reactivity in the IFA procedure, with the exception of related Babesia spp. Specificity has been reported as 90-100% in a comparison of test centers[2], with IgM reported as 99% specific[3.] Sera from a non-endemic region were tested in-house, 94 from Southern California. There were no positives (100% specific).

References

1. Chisholm, E.S., T.K. Ruebush, A.J. Sulzer, and G.R. Healy. 1978. Babesia microti infection in man: evaluation of a indirect immunofluorescent antibody test. Am. J. Trop. Med. Hyg. 27:14-19.

2. Krause, P.J., S.R. Telford III, R. Ryan, P.A. Conrad, M. Wilson, J.W. Thomford, and A. Spielman. 1994. Diagnosis of babesiosis: evaluation of a serologic test for the detection of Babesia microti antibody. J. Infect. Dis. 169:923-926.

3. Krause, P.J., R. Ryan, S.R. Telford III, D.H. Persing, and A. Spielman. 1996. Efficacy of an immunoglobulin M serodiagnostic test for the rapid diagnosis of acute babesiosis. J. Clin. Microbiol. 34:2014-2016.

4. Ryan, R., P.J. Krause, J. Radolf, K. Freeman, A. Spielman, R. Lenz, and A. Levin. 2001. Diagnosis of babesiosis using an immunoblot serologic test. Clin. Diag. Lab. Immunol. 8:1177-1180.