CYREX® Laboratories

CLINICAL SPECIFICATIONS

BABESIA + EHRLICHIA + BARTONELLA

Pathogen Type:

Babesia is a tick-borne intraerythrocytic protozoan parasite.
Ehrlichia is a tick-borne genus of rickettsiales bacteria.
Bartonella henselae is a tick-borne proteobacterium.

Associated With:

Babesiosis [1,2,3]
Human granulocytic ehrlichiosis[4,5]
Cat scratch disease[6,7]
Endocarditis[8]

Known Cross-Reactions:

Epstein-Barr virus[9]

Clinical Significance:

The detection of antibodies to *Babesia* + *Ehrlichia* + *Bartonella* may indicate the patient has increased risk of blood-brain barrier damage, neurological disorders and arthritis. Tick-borne pathogens can have serious, long-lasting effects on the host. Infection with *Babesia* usually results in a subclinical or mild illness, but the infection can occasionally cause severe illness in immunocompromised patients[1 - 3] and persons lacking a spleen.[3] Infections with *Ehrlichia* targets neutrophils adherent to endothelium in tissues, resulting in subsequent tissue damage and systemic proinflammatory responses.[5] *Bartonella* infection can present with nonspecific clinical features indicating upper respiratory tract infection or viral pneumonia.[10]

This array tests for IgG immune reactivity associated with *Babesia* + *Ehrlichia* + *Bartonella*. This is not a measurement of acute infection. Equivocal or out-of-range results indicate IgG antibody reactivity to the tested antigen. We tested 288 blood donor sera against *Babesia*, *Ehrlichia*, *Bartonella* antigens at optimal dilution, 10% of these donors were IgG reactive.

References:

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5. Lepidi, et al. Comparative pathology and immunosistology associated with clinical illness after *Ehrlichia phagocytophila*-group infections. Am J Trop Med Hyg, 2000; 62(1):29-37.
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9. Zbinden, et al. IgM to *Bartonella henselae* in cat scratch disease during acute Epstein Barr virus infection. Med Microbiol Immunol, 1998; 186:167-170.
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