Lab Dept: Microbiology/Virology

Test Name: BASESIA SPECIES, RAPID PCR, BLOOD

General Information

Lab Order Codes: BMPB

Synonyms: Babesiosis, PCR; Babesia gibsoni, PCR

CPT Codes: 87798 – Amplification (PCR) microbial

Test Includes: PCR amplification for detection of Babesia microtti.

Logistics

Test Indications: Useful as an initial screening method for suspected babesiosis during the acute febrile stage of infection in patients from endemic areas, especially when the Giemsa-stained peripheral blood smear does not reveal any organisms.

Lab Testing Sections: Serology - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: LBAB)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1– 4 days, test performed Monday – Saturday

Special Instructions: N/A

Specimen

Specimen Type: Whole Blood

Container: Lavender top (EDTA) tube
Note: Green (heparin) top tubes are NOT acceptable.

Draw Volume: 1 mL (Minimum: 0.3 mL) blood

Processed Volume: Same as Draw Volume

Collection:	Routine venipuncture
Special Processing:	Lab Staff: DO NOT centrifuge specimens. Store and ship specimens in the original vacutainers at refrigerated temperatures. Forward promptly. Submitting the minimum specimen volume makes it impossible to repeat the test or perform confirmatory or perform reflex testing. In some situations a minimum specimen volume may result in a QNS (quantity not sufficient) result, requiring a second specimen to be collected.
Patient Preparation:	None
Sample Rejection:	Unlabeled or mislabeled specimens; specimens other than EDTA; gross hemolysis; gross lipemia

Interpretive

Reference Range:	Negative **Interpretation:** A positive result indicates presence of *Babesia species* DNA and is consistent with active or recent infection. While positive results are highly specific indicators of disease, they should be correlated with blood smear microscopy, serological results and clinical findings. A negative result indicates absence of detectable DNA from *Babesia species* in the specimen, but does not always rule out ongoing babesiosis in a seropositive person, since the parasitemia may be present at a low level or may be sporadic. Other tests to consider in the evaluation of a patient presenting with a flu-like illness following tick exposure include serologic tests for Lyme disease (Borrelia burgdorferi), babesiosis and ehrlichiosis/anaplasmosis. For patients who are past the acute stage of infection, serologic tests for these organisms should be ordered prior to PCR testing.
Critical Values:	N/A
Limitations:	While this assay is designed to detect symptomatic infection with Babesia microti, Babesia duncani and Babesia divergens/MO-1, it may detect low-grade asymptomatic parasitemia in individuals in babesiosis-endemic areas. Thus, it should be used for patiens with a clinical history and symptoms consistent with babesiosis. Inhibitory substances may cause false-negative results. Inadequate specimen collection or improper storage may invalidate test results. This is a qualitative assay and the results reported either as negative or positive for targeted Babesia species DNA.
Methodology:	Real-Time Polymerase Chain Reaction (PCR)/DNA Probe Hybridization

References: Mayo Medical Laboratories August 2015

Updates: 8/19/2015: Updated from Babesia microti to Babesia species.