
Lab Dept: Microbiology/Virology

Test Name: TICK- BORNE DISEASE PANEL PCR, BLOOD

General Information

Lab Order Codes: TPCR (PCR Only), TPBL (Orders both PCR and [Antibody Testing](#))

Synonyms: Ehrlichia chaffeensis; Babesia microti; Tick-borne diseases; Anaplasma phagocytophilum; HME (Human Monocytic Ehrlichiosis); HME (Human Monocytic Ehrlichiosis); Borrelia miyamotoi

CPT Codes: 87798 x8 – Infectious Agent, Amplified Probe tech, each

Test Includes: Babesia microti, Babesia duncani, Babesia divergens/MO-1, Anaplasma phagocytophilum, Ehrlichia chaffeensis, Ehrlichia ewingii/canis, Ehrlichia muris-like and Borrelia miyamotoi PCR.
Note: As of 12/9/2010: Lyme PCR is no longer tested as part of this panel as blood is not deemed an appropriate specimen. Appropriate specimens for Lyme PCR include: CSF, synovial fluid or tissue. See Test listing: [Lyme PCR, CSF or Synovial Fluid](#). Mayo will offer [Lyme PCR, Blood](#) as an individual test for an interim period of time and will eventually discontinue the blood test altogether.

Logistics

Test Indications: Useful for evaluation of the most common tick-borne diseases found in the United States, including human monocytic ehrlichiosis, human granulocytic anaplasmosis, babesiosis, or Borrelia miyamotoi infection. Evaluation of patients with a history of, or suspected, tick exposure who are presenting with fever, myalgia, headache, nausea, and other nonspecific symptoms.

Lab Testing Sections: Serology - Sendouts

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

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 top (heparin) tubes are NOT acceptable.
Draw Volume:	1 mL (Minimum: 0.3 mL) blood
Processed Volume:	Same as Draw Volume
Collection:	Routine venipuncture, invert specimen gently to mix.
Special Processing:	Lab Staff: Do Not centrifuge. Specimen should be sent in original collection container as whole blood. Store and send at refrigerated temperatures. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Unlabeled or mislabeled specimens; specimens other than EDTA plasma; gross hemolysis; gross lipemia

Interpretive

Reference Range: Basesia species, Molecular Detection PCR - Negative
Ehrlichia/Anaplasma, Molecular Detection PCR - Negative
Borrelia Niyamotoi, Molecular Detection PCR – Negative

Reference values apply to all ages.

Critical Values: N/A

Limitations: This panel does not detect *Borrelia burgdorferi* or *Borrelia mayonii*, the causative agents of Lyme disease in the United States. While Lyme polymerase chain reaction testing (PBORB / Lyme Disease [Borrelia burgdorferi], Molecular Detection, PCR, Blood) can be useful for detecting acute infection with *B. mayonii*, this organism has a limited geographic distribution (upper Midwestern United States) and is therefore not included in this panel. Serology is the preferred method for detection of *B. burgdorferi*.

This test should not be used to screen healthy patients.

For more information, see the individual test IDs.

Methodology: Real-Time Polymerase Chain Reaction (PCR)/DNA Probe Hybridization.

References: [Mayo Medical Laboratories](#) December 2022

Updates:

12/9/2010: Lyme PCR is no longer tested as part of this panel as blood is not deemed an appropriate specimen. Appropriate specimens for Lyme PCR include: CSF, synovial fluid or tissue.

1/27/2016: CPT update.

10/25/2016: *Borrelia miyamotoi* added to panel. CPT coding updated.

12/20/2022: Testing transitions to a new performing laboratory within Mayo Clinic to streamline processes of molecular microbiology.