
Lab Dept: Microbiology/Virology

Test Name: EHRLICHIA/ANAPLASMA PCR, BLOOD

General Information

Lab Order Codes: EAPB

Synonyms: Ehrlichia chaffeensis; Ehrlichia ewingii; Ehrlichia muris-like; HME; Human Granulocytic Ehrlichiosis; Anaplasma phagocytophilum

CPT Codes: 87798 x4 – Infectious Agent, Amplified Probe tech

Test Includes: Anaplasma phagocytophilum PCR, Ehrlichia chaffeensis PCR, Ehrlichia Ewingii/canis PCR, Ehrlichia muris-like PCR.

Logistics

Test Indications: Evaluating patients suspected of human granulocytic anaplasmosis or human ehrlichiosis.

Lab Testing Sections: Serology - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: 84319/EHRL)

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: Blood

Container: Lavender top (EDTA) tube

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 ship at refrigerated temperatures. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Unlabeled or mislabeled specimens; anticoagulants other than EDTA; gross lipemia

Interpretive

Reference Range:	Negative Positive results indicate presence of specific DNA from <i>Ehrlichia chaffeensis</i> , <i>Ehrlichia ewingii</i> , <i>Ehrlichia murris-like</i> , or <i>Anaplasma phagocytophilum</i> and support the diagnosis of ehrlichiosis or anaplasmosis. Negative results indicate absence of detectable DNA from any of these 4 pathogens in specimens, but it does not exclude the presence of the organism or active/recent disease. Since DNA of <i>Ehrlichia ewingii</i> is indistinguishable from that of <i>Ehrlichia canis</i> by this rapid PCR assay, a positive result for <i>Ehrlichia ewingii</i> / <i>Ehrlichia canis</i> indicates the presence of DNA from either of these 2 organisms.
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Critical Values: N/A

Limitations: A negative result does not indicate absence of disease.

Inadequate specimen draw or improper conditions for storage and/or transport may invalidate test results.

This assay should not be used for screening asymptomatic individuals, and should only be used to test patients with signs and symptoms of ehrlichiosis/anaplasmosis.

This test may detect DNA of *Ehrlichia canis* (reported to cause asymptomatic infection in Venezuela only).

This PCR test does not detect DNA of *Rickettsia*, formerly *Ehrlichia sennetsu*, which has been reported to cause a rare mononucleosis-like illness in humans (in Japan and Malaysia).

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

References: [Mayo Medical Laboratories](#) June 2013

Updates: 1/28/2016: CPT update.