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 *Ehrlichia chaffeensis*, *Ehrlichia ewingii*, *Ehrlichia murris-like*, or *Anaplasma phagocytophilum* 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 *Ehrlichia ewingii* is indistinguishable from that of *Ehrlichia canis* by this rapid PCR assay, a positive result for *Ehrlichia ewingii*/*Ehrlichia canis* indicates the presence of DNA from either of these 2 organisms.

**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.