
Lab Dept: Microbiology/Virology

Test Name: ENTEROVIRUS MOLECULAR DETECTION PCR,
PLASMA

General Information

Lab Order Codes: ENTPP

Synonyms: Enterovirus RT PCR; PCR for Enterovirus; Coxsackievirus; Echovirus;
Hand, Foot and Mouth Disease

CPT Codes: 87498 – Enterovirus, amplified probe technique

Test Includes: Detection of enterovirus by Real-Time Polymerase Chain Reaction
(PCR)/RNA Probe Hybridization

Logistics

Lab Testing Sections: Microbiology/Virology Sendouts

Referred to: Mayo Medical Laboratories (MML Test: 89893/ENTP)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily

Turnaround Time: 1 - 3 days

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Lavender top (EDTA) tube

Draw Volume: 3 mL (Minimum: 1 mL) blood

Processed Volume: 1 mL (Minimum: 0.3 mL) plasma

Collection: Routine venipuncture

Special Processing: Lab staff: Centrifuge specimen, remove plasma aliquot into a screw-capped plastic vial. Ship and store at refrigerated temperatures. Forward promptly.

Sample Rejection: Improperly labeled specimen; insufficient volume; samples exposed to repeated freeze/thaw cycles; prolonged transport time; improper storage conditions; mislabeled or unlabeled specimens; gross hemolysis; warm specimens; specimens other than EDTA plasma. If an unacceptable specimen is received, the physician or nursing station will be notified.

Interpretive

Reference Range: Negative

Positive results indicate the presence of enterovirus RNA in the specimen.

Significant Finding: Positive: All positive results will be called to the physician or nursing unit.

Limitations: A negative result does not rule out the possibility of enterovirus infection in the CNS. Although the reference range is typically “negative” for this assay, it may detect virus from a variety of specimen types in asymptomatic individuals. This assay should only be used for patients with a clinical history and symptoms consistent with enterovirus infection, and must be interpreted in the context of the clinical picture. This test should not be used to screen asymptomatic patients.

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

Additional Information:

- Proper handling and storage is very important to prevent the destruction of the target RNA by RNases that can be introduced by human hands. Gloving is recommended when handling these specimens. Storage at -70° C also helps stabilize the nucleic acid.
- The enterovirus group includes the polioviruses, echoviruses, coxsackievirus A and coxsackievirus B.
- During the summer and the fall, enteroviruses account for over half of the cases involving infants seen in the emergency room presenting with a fever and no other symptoms. More than 90% of community-acquired cases of viral meningitis are caused by coxsackievirus serotypes B2 and B5, and echoviruses 4,6,9,11,16, and 30.

References: [Mayo Medical Laboratories Web Page](#) May 2014