
Lab Dept: Microbiology/Virology

Test Name: HERPES SIMPLEX VIRUS (HSV) PCR, CSF

General Information

Lab Order Codes: HSVM

Synonyms: Herpes Simplex Virus (HSV) DNA Detection by Polymerase Chain Reaction (PCR), Spinal Fluid; HSV Detection by Real-Time PCR; LightCycler HSV

CPT Codes: 87529 - Infectious agent detection by nucleic acid (DNA or RNA); Herpes simplex virus, amplified probe technique

Test Includes: Real Time Polymerase Chain Reaction detection of Herpes Simplex Virus reported as negative or positive for type 1 DNA or type 2 DNA.

Logistics

Test Indications: Useful for rapid qualitative detection of HSV DNA.

Lab Testing Sections: Microbiology - Sendouts

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

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 – 3 day, set up Monday-Saturday

Special Instructions: Specimens grossly contaminated with blood may inhibit the PCR and produce false negative results. Specimen type is required on specimen submission.

Specimen

Specimen Type: CSF

Container: CSF: Screw-capped, sterile vial

Volume: CSF 0.5 mL (Minimum: 0.3 mL)

Collection: CSF: Aseptic technique or puncture

Special Processing: Lab Staff: Specimen must be processed in a clean environment in which contamination of the specimen by HSV DNA is not likely. Send specimen refrigerated in a screw-capped, sterile vial or original collection container based on specimen type. Maintain sterility and forward promptly. Send refrigerated.

Specimen stability:
Refrigerated: 7 days (preferred)
Frozen: 7 days

Patient Preparation: None

Sample Rejection: Improperly labeled or unlabeled specimen. Unacceptable specimen type. If an unacceptable specimen is received, the physician or nursing station will be notified and another specimen will be requested before the specimen is discarded.

Interpretive

Reference Range: Negative

Positive results are reported as herpes simplex type 1 (or 2) DNA detected. **Note:** Both HSV types are tested with each request, but are only reported if positive.

Note: Detection of HSV DNA in clinical specimens supports the clinical diagnosis of infection due to the virus. The lower limit of detection of LightCycler PCR is <10 genomic copies of HSV DNA per specimen. HSV DNA is not detected in CSF from patients without CNS disease caused by the virus.

Significant Finding: Positive in CSF

Limitations:

- A negative result does not eliminate the possibility of HSV infection. HSV DNA may not be detectable in the early acute stages of the CNS disease. In addition, in some cases, after initial detection (positive result), HSV DNA may be present in CSF specimens for 3-4 weeks after initial presentation of symptoms. DNA levels may fall to undetectable levels with time.

- Specimens grossly contaminated with blood may inhibit the PCR and produce false-negative results. The high sensitivity of amplification by PCR requires the specimen to be processed in an environment in which contamination of the specimen by HSV DNA is not likely.

- This assay may detect viral shedding in asymptomatic individuals. This may be especially relevant when dermal or genital sites are tested, since intermittent shedding without noticeable lesions has been described.

- This assay is only to be used for patients with a clinical history and symptoms consistent with HSV 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

References:

[Mayo Medical Laboratories Web Page](#) October 2016