

---

**Lab Dept:** Microbiology/Virology

**Test Name:** EPSTEIN-BARR (EBV), MOLECULAR DETECTION, NON-BLOOD

---

***General Information***

**Lab Order Codes:** LEBV

**Synonyms:** EBV PCR, Non-blood

**CPT Codes:** 87798 – Infectious agent detection by nucleic acid (DNA or RNA), not otherwise specified; amplified probe technique, each organism

**Test Includes:** This is a qualitative assay and results are reported as either negative or positive for targeted Epstein-Barr virus (EBV) DNA.

---

***Logistics***

**Test indications:** Rapid qualitative detection of Epstein-Barr virus (EBV) DNA in specimens for laboratory diagnosis of disease due to this virus.

Epstein-Barr virus is the causative agent of infectious mononucleosis, Burkitt lymphoma, and in Southern China, nasopharyngeal carcinoma. EBV-associated central nervous system (CNS) disease is most commonly associated with primary CNS lymphoma in patients with AIDs. In addition, CNS infection associated with the detection of EBV DNA can be seen in immunocompromised patients.

**Lab Testing Sections:** Microbiology/Virology - Sendouts

**Referred to:** Mayo Clinic Laboratories (Mayo test: LEBV)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 3-5 days

**Special Instructions:** This test should not be used to screen asymptomatic patients.

---

***Specimen***

<b>Specimen Type:</b>	<p>Fluid (CSF, sterile body fluids, ie, peritoneal fluid/ascites, pericardial fluid, pleural fluid/thoracentesis, amniotic fluid, or ocular)</p> <p>Respiratory sources (Bronch washing, bronch lavage, nasopharyngeal aspirate or washing, sputum or trach aspirate)</p> <p>Swab specimens (Eye and upper respiratory/nasal/throat)</p> <p>Bone marrow</p> <p>Tissue (brain, colon, kidney, liver, lung)</p>
<b>Container:</b>	<p>Fluids/Respiratory: Sterile, screw-capped plastic container/tube</p> <p>Swabs: BBL Culture swab or M4-RT</p> <p>Bone Marrow: Lavender (EDTA) tube</p> <p>Tissue: Fresh tissue in sterile container with 1-2 mL sterile saline or multimicrobe medium (M4-RT, M4 or M5)</p>
<b>Draw Volume:</b>	<p>Fluids: 0.5 mL (Minimum: 0.3 mL) fluid (do not centrifuge)</p> <p>Respiratory: 1.5 mL (Minimum 1 mL) respiratory sources</p> <p>Swabs: Place specimen swab back into multimicrobe media after collection.</p> <p>Bone Marrow: 0.5 mL bone marrow (note: clotted specimens will be rejected)</p> <p>Tissue: Entire collection (Minimum: 2x2 mm biopsy) in sterile container with 1-2 mL sterile saline or multimicrobe medium (M4-RT, M4 or M5)</p>
<b>Processed Volume:</b>	Same as Draw Volume
<b>Collection:</b>	Specific to type of collection as determined by provider
<b>Special Processing:</b>	Ship and store specimens at refrigerated temperatures
<b>Patient Preparation:</b>	N/A
<b>Sample Rejection:</b>	<p>Mislabeled or unlabeled specimen</p> <p>Tissue/Swabs: Calcium alginate tipped swab, wood swab or transport swab containing gel Formalin-fixed and paraffin-embedded tissues</p> <p>Bone marrow: clotted specimens</p>

---

***Interpretive***

**Reference Range:** Negative

Interpretation: Detection of Epstein-Barr virus (EBV) DNA in cerebrospinal fluid (CSF) supports the clinical diagnosis of central nervous system (CNS) disease due to the virus. EBV DNA is not detected in CSF from patients without CNS disease caused by this virus.

**Critical Values:** N/A

**Limitations:** A negative result does not eliminate the possibility of Epstein- Barr virus (EBV) infection of the central nervous system.

This assay may detect viremia or viral shedding in asymptomatic individuals. However, this assay is only to be used for patients with a clinical history and symptoms consistent with EBV 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)/DNA Probe Hybridization

**References:** [Mayo Clinic Laboratories](#) (August 2020)