Serology

**Test Name:** HERPES SIMPLEX VIRUS IGG & IGM ANTIBODIES

**General Information**

**Lab Order Codes:** HERP

**Synonyms:** HSV Antibodies, IgG and IgM, Serum; Herpes Simplex Virus (HSV) Type 1 and Type 2 Specific Antibodies; Herpes Simplex Serology; Herpes Simplex Virus Antibody Titer; HSV Ab

**CPT Codes:**
- 86694 – Antibody; herpes simplex non-specific type test
- 86694 – Antibody; herpes simplex non-specific type test IFA (if appropriate)
- 86695 – Antibody; herpes simplex, type 1
- 86696 – Antibody; herpes simplex, type 2

**Test Includes:** HSV 1 and 2 IgG and HSV 1,2 Screen, IgM, EIA Antibody levels. If the HSV 1,2 Screen, IgM, EIA is positive, an HSV 1,2, IgM, IFA will automatically be ordered at an additional cost.

**Logistics**

**Test Indications:** Serologic testing for HSV types 1 or 2 can be used for determining acute phase infection with the virus by measuring seroconversion between acute and convalescent phase specimens, especially for patients without clear-cut clinical symptoms, such as genital (especially HSV-2) infection. Serum specimens may be tested for the presence of HSV type-specific (1 or 2) IgG class antibodies.

**Lab Testing Sections:** Serology - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: 84422/HSV)

**Phone Numbers:**
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 – 2 days; performed Monday - Saturday

**Special Instructions:** N/A

**Specimen**
**Specimen Type:** Blood  
**Container:** Red top tube  
**Draw Volume:** 3 mL (Minimum: 2.4 mL) blood  
**Processed Volume:** 1 mL (Minimum: 0.8 mL) serum  
**Collection:** Routine venipuncture  
**Special Processing:** Lab Staff: Centrifuge specimen and remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly  
**Patient Preparation:** None  
**Sample Rejection:** Specimens other than serum; gross hemolysis; gross lipemia  

### Interpretive

<table>
<thead>
<tr>
<th>Reference Range</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HSV 1 IgG:</td>
<td></td>
</tr>
<tr>
<td>Negative (reported as positive, negative or equivocal)</td>
<td></td>
</tr>
<tr>
<td>HSV 2 IgG:</td>
<td></td>
</tr>
<tr>
<td>Negative (reported as positive, negative or equivocal)</td>
<td></td>
</tr>
<tr>
<td>HSV Antibody Screen, IgM, by EIA:</td>
<td></td>
</tr>
<tr>
<td>Negative (reported as reactive or negative)</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** A positive EIA result will be automatically reflexed to HSV Ab, IgM, IFA at an additional cost.

The presence of IgM HSV antibodies indicates acute infection with either HSV type 1 or 2.

The IgG antibody assay detects IgG-class antibodies to type specific HSV glycoprotein G (gG), and may allow for the differentiation of infection caused by HSV types 1 and 2. The presence of IgG-class antibodies to HSV types 1 or 2 indicated previous exposure, and does not necessarily indicate that HSV is the causative agent of an acute illness.

**Critical Values:** N/A
Limitations:

Individuals infected with HSV may not exhibit detectable levels of IgM antibody in the early stages of infection.

Detection of IgG-class antibodies to HSV should not be used routinely as the primary means of diagnosing HSV infection. For patients presenting with presumed acute infection with HSV, a clinical specimen (e.g., oral, dermal, or genital lesion) should be sampled and submitted for detection of HSV types 1 and 2 by rapid PCR.

Serum specimens collected too early in the course of infection may not have detectable levels of HSV IgG. In cases of suspected early disease, a repeat serum specimen should be collected 14 to 21 days later and submitted for testing.

The presence of IgG-class antibodies to either HSV type 1 or 2 does not differentiate between remote infection or acute disease.

HSV serology cannot distinguish genital from non-genital infections.

The predictive value of positive or negative results depends on the prevalence of disease and the pretest likelihood of HSV-1 and HSV-2.

False positive results may occur. Repeat testing, or testing by a different method, may be indicated in some settings (eg, patients with low likelihood of HSV infection).

Methodology:

Multiplex Flow Immunoassay – IgG
Enzyme Immunoassay (EIA) – IgM
Immunofluorescence Assay (IFA) - IgM for confirmation

References:

Mayo Medical Laboratories Web Page August 2013

Updates:

1/10/2011: Revised minimum collection and serum volumes. Updated limitations section and method information.