Overview

Useful For
Assessment of cerebrospinal fluid (CSF) IgG/albumin ratio in the absence of a paired CSF and serum specimen

Method Name
Nephelometry

NY State Available
Yes

Specimen

Specimen Type
CSF

Advisory Information
The cerebrospinal fluid (CSF) index in which the CSF IgG/albumin ratio is compared to the serum IgG/albumin ratio aids in the diagnosis of individuals with multiple sclerosis. See SFIN / Cerebrospinal Fluid (CSF) IgG Index, Serum and Spinal Fluid.

Specimen Required
Collection Container/Tube: Sterile vial
Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL
Specimen Minimum Volume: 0.5 mL

Reject Due To

<table>
<thead>
<tr>
<th>Condition</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>Gross hemolysis</td>
<td>OK</td>
</tr>
<tr>
<td>Gross lipemia</td>
<td>OK</td>
</tr>
<tr>
<td>Gross icterus</td>
<td>OK</td>
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</tbody>
</table>

Specimen Stability Information

<table>
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<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
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<tbody>
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<td>CSF</td>
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<td></td>
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<tr>
<td></td>
<td>Ambient</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>14 days</td>
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Clinical and Interpretive
**Clinical Information**

Elevation of IgG levels in the cerebrospinal fluid (CSF) of patients with inflammatory diseases of the central nervous system (CNS) (multiple sclerosis: MS, neurosyphilis, acute inflammatory polyradiculoneuropathy, subacute sclerosing panencephalitis) is due to local CNS synthesis of IgG.

The 2 most commonly used diagnostic laboratory tests for MS are CSF index and oligoclonal banding. The CSF index is the CSF IgG to CSF albumin ratio compared to the serum IgG to serum albumin ratio. The CSF index is therefore an indicator of the relative amount of CSF IgG compared to serum and any increase in the index is a reflection of IgG production in the central nervous system. The IgG synthesis rate is a mathematical manipulation of the CSF index data and can also be used as a marker for CNS inflammatory diseases.

**Reference Values**

CSF IgG: 0.0-8.1 mg/dL

CSF albumin: 0.0-27.0 mg/dL

CSF IgG/albumin: 0.00-0.21

**Interpretation**

Cerebrospinal fluid IgG index is positive (elevated) in approximately 80% of patients with multiple sclerosis.

**Cautions**

The cerebrospinal fluid (CSF) index can be elevated in other inflammatory demyelinating diseases such as neurosyphilis, acute inflammatory polyradiculoneuropathy, and subacute sclerosing panencephalitis. Oligoclonal banding in CSF is slightly more sensitive (85%) than the CSF index. The use of CSF index plus oligoclonal banding has been reported to increase the sensitivity to over 90%.

**Clinical Reference**


**Performance**

**Method Description**

The cerebrospinal fluid (CSF) and albumin are determined by immunonephelometry on a Siemens Nephelometer II. CSF IgG and albumin, and CSF IgG/albumin ratios are reported. (Instruction manual: Siemens Nephelometer II Operations. Siemens, Inc., Newark, DE. May 2005)
PDF Report
No

Day(s) and Time(s) Test Performed
Monday through Saturday; 2 p.m.

Analytic Time
Same day/1 day

Maximum Laboratory Time
2 days

Specimen Retention Time
2 weeks

Performing Laboratory Location
Rochester

Fees and Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

Test Classification
This test has been cleared or approved by the U.S. Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
82042
82784

LOINC® Information

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<th>Order LOINC Value</th>
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<tr>
<td>CASF</td>
<td>IgG/Albumin Ratio, CSF</td>
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<table>
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<tr>
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<td>Albumin, CSF</td>
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<td>IgG/Albumin, CSF</td>
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