
Lab Dept: Serology

Test Name: MULTIPLE SCLEROSIS (MS) PROFILE

General Information

Lab Order Codes: MSPR

Synonyms: MS Profile

CPT Codes: 83883 – Nephelometry, each analyte not elsewhere specified
83916 - Oligoclonal band, spinal fluid (if appropriate)
83916 - Oligoclonal band, serum (if appropriate)

Test Includes: Kappa free light chains will be performed. When Kappa free light chain testing indicates either borderline or positive results (> or =0.0600 mg/dL), oligoclonal band testing will be performed at an additional charge. Testing requires both serum and cerebral spinal fluid.

Logistics

Test Indications: Diagnosing multiple sclerosis, especially helpful in patients with equivocal clinical or radiological findings.

Multiple Sclerosis (MS) is a chronic inflammatory demyelinating disease characterized by visual, motor, and sensory disturbances. The diagnosis of MS is dependent on clinical, radiological and laboratory findings. The detection of increased intrathecal immunoglobulin (Ig) synthesis may occur in other inflammatory central nervous system diseases and, therefore, these assays are not specific for multiple sclerosis.

Lab Testing Sections: Serology - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: MSP3)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 3 days

Special Instructions: Both blood and spinal fluid need to be collected.

Specimen

Specimen Type: Blood and spinal fluid (CSF)

Container:	Blood: SST(Gold, marble or red) tube Spinal Fluid: CSF conical tube
Draw Volume:	Blood: 3 mL (Minimum: 1.5 mL) Spinal Fluid: 1 mL (Minimum: 0.5 mL)
Processed Volume:	Serum: 1 mL (Minimum: 0.5 mL) Spinal Fluid: 1 mL (Minimum: 0.5 mL)
Collection:	Blood: Routine venipuncture Spinal Fluid: Routine CSF collection
Special Processing:	Lab Staff: Blood: Centrifuge specimen and aliquot into a round bottom, screw-capped plastic vial. Label specimen as serum. Store and ship at refrigerated temperatures. Spinal Fluid: Aliquot spinal fluid into a round bottom, screw-capped plastic vial. Label as spinal fluid. Store and ship at refrigerated temperatures.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range:	Test Name:	Result:
	Kappa Free Light Chain, CSF	Medical decision point: 0.1000 mg/dL Positive: > or =0.1000 mg/dL Borderline: 0.0600 mg/dL – 0.0999 mg/dL Negative: <0.0600 mg/dL
	Oligoclonal bands CSF	<2 bands
	Oligoclonal bands Serum	No Reference Range Available
<p>Interpretation: CSF is used in the diagnosis of multiple sclerosis (MS) by identifying increased intrathecal IgG synthesis qualitatively (Oligoclonal bands). The presence of 2 or more unique CSF oligoclonal bands was reintroduced as one diagnostic criteria for MS in the 2017 revised McDonald criteria. These findings, however, are not specific for MS as CSF-specific IgG synthesis may also be found in patients with other neurologic diseases including infectious, inflammatory, cerebrovascular, and paraneoplastic disorders Clinical correlation is recommended.</p>		

Critical Values: N/A

Limitations: Increased intrathecal Ig synthesis may occur in other inflammatory central nervous system (CNS) diseases and therefore, these assays are not specific for MS. The presence of oligoclonal bands or elevated CSF Ig index is unrelated to disease activity.

Methodology: Kappa Free Light Chain, CSF: Nephelometry
Oligoclonal bands: Isoelectric focusing with IgG Immunoblot Detection

References: [Mayo Clinic Laboratories](#) July 2020

Updates:
12/21/2017: Updated collection container for blood.
7/21/2020: Updated testing algorithm from Mayo
9/1/2022: Updated test algorithm and reference ranges from Mayo