# Test Definition: OLIGC

Oligoclonal Banding, Spinal Fluid
(Non-Orderable)

## Overview

### Useful For

**Only orderable as part of a profile**. For more information, see:
OLIG / Oligoclonal Banding, Serum and Spinal Fluid
MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

Diagnosis of multiple sclerosis; especially useful in patients with equivocal clinical presentation and radiological findings

### Method Name

Only orderable as part of a profile. For more information, see:
OLIG / Oligoclonal Banding, Serum and Spinal Fluid
MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

Isoelectric Focusing (IEF) with IgG Immunoblot Detection

### NY State Available

Yes

## Specimen

### Specimen Type

CSF

### Specimen Required

Only orderable as part of a profile. For more information, see:
OLIG / Oligoclonal Banding, Serum and Spinal Fluid
MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

### Specimen Minimum Volume

See Specimen Required

### Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

### Specimen Stability Information

| Specimen Type | Temperature | Time | Special Container |
|---|---|---|---|
| CSF | Refrigerated (preferred) | 14 days | |

| | | | |
|---|---|---|---|
| | Ambient | 14 days | |
| | Frozen | 14 days | |

## Clinical & Interpretive

### Clinical Information

The diagnosis of multiple sclerosis (MS) is dependent on clinical, radiological, and laboratory findings. The detection of increased intrathecal immunoglobulin (Ig) synthesis is the basis for current diagnostic laboratory tests for MS.

These tests include the measurement of kappa free light chains in cerebrospinal fluid (CSF) and CSF oligoclonal band (OCB) detection. Abnormal CSF OCB patterns have been reported in 70% to 80% of MS patients.

Increased intrathecal Ig synthesis may occur in other inflammatory CSF diseases and, therefore, this assay is not specific for MS.

### Reference Values

Only orderable as part of a profile. For more information, see:
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MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

Cerebrospinal fluid Oligoclonal Bands Interpretation: <2 bands

### Interpretation

When the oligoclonal band assay detects 2 or more unique IgG bands in the cerebrospinal fluid (CSF), the result is positive.

Cerebrospinal fluid 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 of the 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 recommended.

### Cautions

This test is not specific for multiple sclerosis.

### Clinical Reference

1. Andersson M, Alvarez-Cermeno J, Bernardi G, et al. Cerebrospinal fluid in the diagnosis of multiple sclerosis: a consensus report. J Neurol Neurosurg Psychiatry. 1994;57(8):897-902
2. Fortini AS, Sanders EL, Weinshenker BG, Katzmann JA. Cerebrospinal fluid oligoclonal bands in the diagnosis of multiple sclerosis. Isoelectric focusing with the IgG immunoblotting compared with high resolution agarose gel electrophoresis and cerebrospinal fluid IgG index. Am J Clin Pathol. 2003:120(5):672-675
3. Thompson AJ, Banwell BL, Barkhof F, et al. Diagnosis of multiple sclerosis: 2017 revisions of the McDonald criteria. Lancet Neurol. 2018;17(2):162-173

4. Gurtner KM, Shosha E, Bryant SC, et al. CSF free light chain identification of demyelinating disease: comparison with oligoclonal banding and other CSF indexes. Clin Chem Lab Med. 2018;56(7):1071-1080
5. Saadeh R, Pittock S, Bryant S, et al. CSF kappa free light chains as a potential quantitative alternative to oligoclonal bands in multiple sclerosis. Neurology. 2019;92(15_supplement). doi:10.1212/WNL.92.15_supplement.S37.001

## Performance

### Method Description
The oligoclonal band (OCB) assay requires paired cerebrospinal fluid (CSF) and serum samples. Unconcentrated CSF and diluted serum are electrophoresed by isoelectric focusing. The separated immunoglobulins (Ig) are visualized by an IgG immunoblot, and OCBs that are present in the CSF and not in the serum are reported.(Package insert: SPIFE Touch IgG IEF Procedure. Helena Laboratories. 02/2024)

### PDF Report
No

### Day(s) Performed
Monday through Friday

### Report Available
4 to 7 days

### Specimen Retention Time
14 days

### Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Superior Drive

## Fees & 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 account representative. For assistance, contact Customer Service.

### Test Classification
This test has been cleared, approved, or is exempt by the US 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

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(Non-Orderable)

83916

## LOINC® Information

| Test ID | Test Order Name | Order LOINC® Value |
|---|---|---|
| OLIGC | CSF Bands | 100756-6 |

| Result ID | Test Result Name | Result LOINC® Value |
|---|---|---|
| 8017 | CSF Bands | 49852-7 |
| 23611 | CSF Olig Bands Interpretation | 100756-6 |