

CSF Kappa Free Light Chains With Reflex to Oligoclonal Banding

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Kappa free light chains (kFLCs) in cerebrospinal fluid (CSF) are used in the diagnostic evaluation of [multiple sclerosis](#) (MS) as markers of intrathecal immunoglobulin synthesis. Excess light chains are produced during inflammatory activity in the central nervous system (CNS).

The 2024 McDonald criteria recognize kFLCs as an acceptable alternative to oligoclonal bands (OCBs) for establishing a positive CSF result. Compared with OCB testing, kFLC measurement is faster, less labor-intensive, and more objective.

This test measures CSF kFLCs and, if results are equivocal or positive, automatically reflexes to oligoclonal banding. Reflex testing from positive or equivocal kFLCs to OCBs improves diagnostic accuracy while reducing costs and turnaround times in cases that screen negative. For the most accurate result interpretation, it is recommended to collect CSF and serum specimens on the same day.

Featured ARUP Testing

[CSF Kappa Free Light Chains With Reflex to Oligoclonal Banding 3021031](#)

Method: Quantitative Immunoturbidimetry / Qualitative Isoelectric Focusing

Disease Overview

[MS](#) is a chronic immune-mediated disease of the CNS characterized by inflammation and demyelination. Diagnosis is based on the McDonald criteria,¹ which incorporate clinical findings, imaging, and laboratory evidence of intrathecal inflammation.

Indications for Use

This test is used to evaluate patients with suspected [MS](#).

Test Interpretation

Reflex Pattern

If kFLCs are equivocal or positive, this test automatically reflexes to oligoclonal banding.

Results

CSF Kappa Free Light Chains

Result	Value	Additional Information
Negative	<0.33 mg/L	Not suggestive of intrathecal inflammation; oligoclonal banding is not indicated
Equivocal	0.33 mg/L–1.09 mg/L	May be consistent with intrathecal inflammation; reflex to OCBs performed
Positive	>1.09 mg/L	Consistent with intrathecal inflammation; reflex to OCBs performed

Reflex Oligoclonal Bands

The report includes an OCB number and CSF results. When present, the number of CSF-restricted OCBs is reported. Matched OCBs may also be identified in both serum and CSF.

Result	OCB Number, CSF	Interpretation
Negative	0-1 bands	No OCBs detected in CSF No evidence of intrathecal IgG synthesis
Positive	≥2 CSF-restricted bands	Consistent with intrathecal synthesis of IgG
Positive with matched bands	≥2 CSF-restricted bands and matched bands in CSF and serum	Consistent with intrathecal IgG synthesis Matched serum and CSF bands are consistent with a systemic inflammatory process

IgG, immunoglobulin G

Limitations

- Neither kFLCs or OCBs are specific to MS and may be elevated in other neurologic conditions, including autoimmune, infectious, inflammatory, cerebrovascular, and paraneoplastic disorders.
- Approximately 5% of patients with MS have negative OCB results.
- Testing serum and CSF specimens collected on different days may reduce accuracy of OCB results.

Results should be interpreted within the appropriate clinical context.

Related Tests

ARUP also offers standalone tests: Kappa Free Light Chains, CSF ([3020898](#)) and Oligoclonal Band Profile ([0080440](#)).

References

1. Montalban X, Lebrun-Frénay C, Oh J, et al. [Diagnosis of multiple sclerosis: 2024 revisions of the McDonald criteria](#). *Lancet Neurol*. 2025;24(10):850-865.

ARUP Laboratories is a nonprofit enterprise of the University of Utah and its Department of Pathology.
500 Chipeta Way, Salt Lake City, UT 84108
Phone: 801-583-2787
Toll-Free Phone: 800-522-2787

aruplab.com | arupconsult.com