

DATE:	30 March 2026
TO:	All Zones – Physicians, Nurses, Healthcare Providers, Managers
FROM:	Clinical Biochemistry, Alberta Precision Labs (APL)
RE:	Implementation of Serum Muscle Specific Kinase Antibody Testing in Alberta

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Key Message

- Effective **April 2, 2026**, all testing for serum muscle specific kinase antibody will be performed by APL at the University of Alberta Hospital lab in Edmonton using a fixed cell-based assay (F-CBA) method.
- Acetylcholine receptor antibody (AChR ab) and muscle specific kinase antibody (Musk ab) will be orderable in Connect Care (Test Code: *Myasthenia Gravis Panel [LAB8190]*) and by using the APL general laboratory requisition (free text in the 'Additional Tests' box).
- Muscle specific kinase antibody test turnaround times will improve significantly.

Background

- Muscle specific kinase antibody is a second order test that aids in the diagnosis of autoimmune myasthenia gravis (MG). Anti-MuSK MG is characterized by higher frequency of myasthenic crises and more prominent bulbar features affecting face, throat, and neck muscles.
- In July 2025, the UAH laboratory implemented AChR ab indirect immunofluorescence F-CBA which enhanced sensitivity for AChR detection.
- Anti-Musk REF is currently sent out of province when AChR ab results are negative.

How this will impact you

- The Musk ab method will change from a qualitative (negative/positive) radioimmunoprecipitation assay to an indirect immunofluorescence F-CBA. Refer to the Appendix for new reporting comments.
- The expected turnaround time for the MG Panel is 1 to 2 weeks.
- Reports will be available in Connect Care and Netcare. Ordering providers not on Connect Care will receive a mailed report.

Action Required

- Be aware that muscle specific kinase antibody testing will now be performed by APL and both AChR ab and Musk ab will require a new Connect Care order (Test code: *Myasthenia Gravis Panel [LAB8190]*). Please update order sets and preference lists accordingly.
- Refer to the APL Myasthenia Gravis Panel test directory for sample collection and handling information.

Questions/Concerns

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Approved by

- Dr. Carolyn O'Hara, Interim Chief Medical Laboratory Officer, APL



Appendix: New Reporting Comments for Muscle Specific Kinase Antibody Test

MG Panel Method	Testing performed by indirect immunofluorescence fixed cell-based assay (F-CBA).
Negative	
Indeterminate	Pattern is not well defined. Possible non-specific binding or interference. Sample referred out for Anti-Musk radioimmunoassay.
Weak Positive	Weak positivity for Musk antibody has high but imperfect specificity for myasthenia gravis. Clinical correlation is recommended. Sample referred out for Anti-Musk radioimmunoassay to confirm.
Positive	A positive result, in the appropriate clinical and electrophysiological context, confirms the diagnosis of autoimmune MuSK myasthenia gravis.