

Autoimmune Neuromuscular Junction Reflexive Panel

Autoimmune neuromuscular junction disorders are a broad range of rare, acquired conditions that affect the peripheral nervous system. Antibodies associated with these conditions can serve as useful markers of disease and help guide treatment.¹

Disease Overview

Autoimmune neuromuscular junction disorders generally develop subacutely and can progress rapidly. They are characterized by fatigable weakness which may affect ocular, bulbar, axial, and respiratory muscles.¹ Antineural antibodies serve as useful markers of these diseases, and their detection may help establish a diagnosis, support treatment decisions, aid prognostication, serve as a prerequisite for enrollment in clinical trials, and guide the search for an associated malignancy.

For more information about laboratory testing for autoimmune neurologic diseases, including detailed information about panel test selection, refer to the ARUP Consult [Autoimmune Neurologic Diseases - Antineural Antibody Testing](#) topic. For more information about the testing strategy for myasthenia gravis, refer to the ARUP Consult [Myasthenia Gravis - MG](#) topic.

Test Description

ARUP's Autoimmune Neuromuscular Junction Reflexive Panel can be used for the evaluation of suspected acquired autoimmune neuromuscular junction disorders.

This test is not recommended for the initial evaluation of myasthenia gravis. For more information on ARUP's myasthenia gravis testing, refer to the [Myasthenia Gravis Testing](#) Test Fact Sheet.

Testing for individual autoantibodies is also available separately and can be used for long-term monitoring.

Antibodies Tested and Methodology

Autoimmune Neuromuscular Junction Reflexive Panel (3003017): Antibodies Tested and Methodology		
Autoantibody Marker	Method	Individual Autoantibody Test Code
AChR Binding Ab, IgG	RIA	0080009
AChR Blocking Ab, IgG	Flow cytometry	0099580
AChR Modulating Ab, IgG ^a	Flow cytometry	0099521
CASPR2 Ab, IgG ^a	CBA-IFA, reflex titer	2009452
Ganglionic AChR Ab	RIA	3003020
LG11 Ab, IgG ^a	CBA-IFA, reflex titer	2009456
N-type VGCC Ab, IgG	RIA	—
P/Q-type VGCC Ab, IgG	RIA	0092628

^aPerformed via reflex only, depending on the results of other autoantibody tests; refer to Reflex Pattern diagram.

Ab, antibody; AChR, acetylcholine receptor; CASPR2, contactin-associated protein 2; CBA, cell-binding assay/cell-based assay; IFA, indirect immunofluorescence assay; Ig, immunoglobulin; LG11, leucine-rich, glioma-inactivated protein 1; mGluR1, metabotropic glutamate receptor 1; MOG, myelin oligodendrocyte glycoprotein; NMDAR, N-methyl-D-aspartate receptor; PCCA, Purkinje cell cytoplasmic antibody; RIA, radioimmunoassay; VGCC, voltage-gated calcium channel; VGKC, voltage-gated potassium channel

Featured ARUP Testing

[Autoimmune Neuromuscular Junction Reflexive Panel 3003017](#)

Method: Quantitative Radioimmunoassay/Qualitative Radiobinding Assay/Semi-Quantitative Flow Cytometry/Semi-Quantitative Indirect Fluorescent Antibody

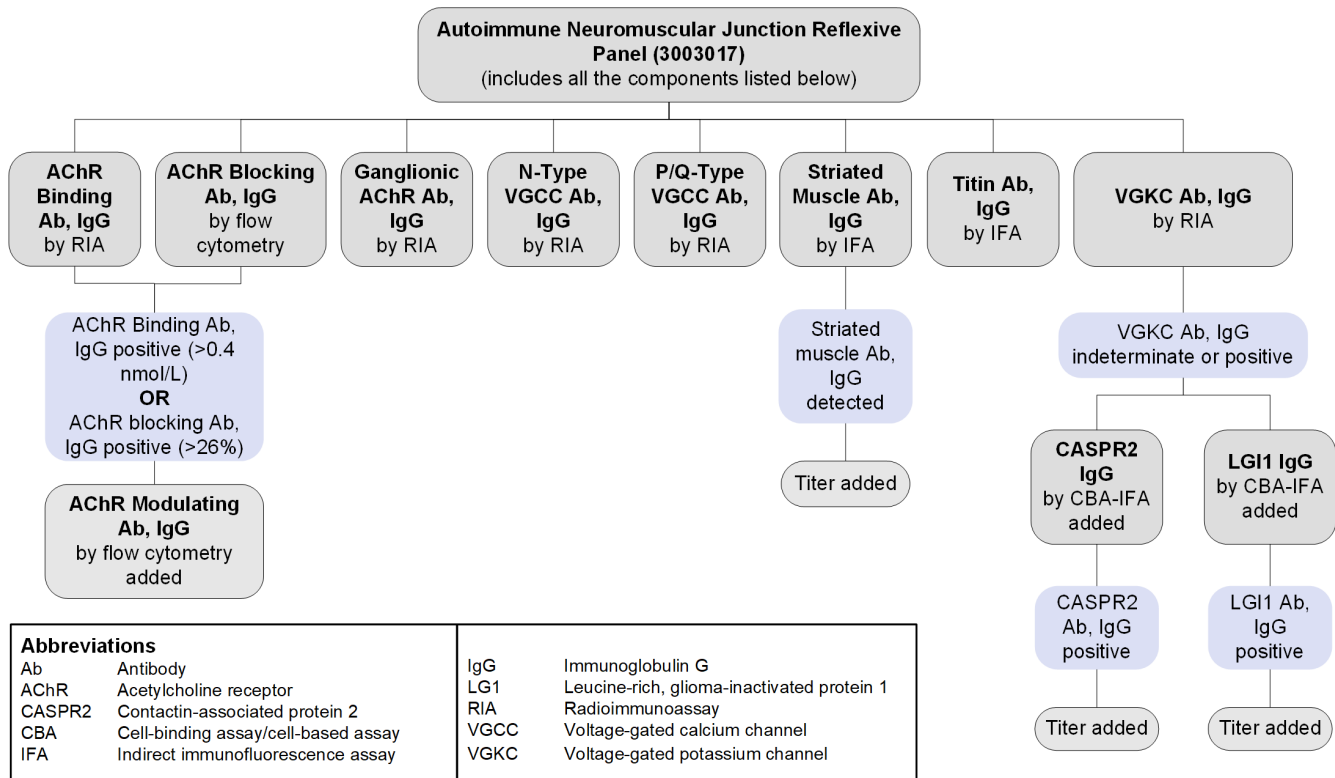
Autoantibody Marker	Method	Individual Autoantibody Test Code
Striated Muscle Abs, IgG	IFA, reflex titer	0050746
Titin Ab, IgG	IFA	2005636
VGKC Ab, IgG	RIA	2004890

^aPerformed via reflex only, depending on the results of other autoantibody tests; refer to Reflex Pattern diagram.

Ab, antibody; AChR, acetylcholine receptor; CASPR2, contactin-associated protein 2; CBA, cell-binding assay/cell-based assay; IFA, indirect immunofluorescence assay; Ig, immunoglobulin; LGI1, leucine-rich, glioma-inactivated protein 1; mGluR1, metabotropic glutamate receptor 1; MOG, myelin oligodendrocyte glycoprotein; NMDAR, N-methyl-D-aspartate receptor; PCCA, Purkinje cell cytoplasmic antibody; RIA, radioimmunoassay; VGCC, voltage-gated calcium channel; VGKC, voltage-gated potassium channel

Reflex Patterns

Autoimmune Neuromuscular Junction Reflexive Panel (3003017): Reflex Pattern



Limitations

These tests do not include all known antineural antibodies:

- Some antibodies are extremely rare or are of uncertain clinical significance.
- As testing for newly described antibodies becomes available and their clinical relevance is established, these panels will evolve to reflect these discoveries.

Test Interpretation

Results

Results must be interpreted in the clinical context of the individual patient; test results (positive or negative) should not supersede clinical judgment.

Autoimmune Neuromuscular Junction Reflexive Panel (3003017): Results Interpretation

Result	Interpretation
Positive for ≥1 autoantibodies	Autoantibody(ies) detected May support a diagnosis of an autoimmune neuromuscular junction disorder

Result	Interpretation
Negative	No autoantibodies detected A diagnosis of an autoimmune neuromuscular junction disorder is not excluded

References

1. Lazaridis K, Tzartos SJ. Autoantibody specificities in myasthenia gravis; implications for improved diagnostics and therapeutics. *Front Immunol*. 2020;11:212.

Related Information

[ARUP Autoimmune Neurology Panel Components](#)

[Autoimmune Neurologic Diseases - Antineural Antibody Testing](#)

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