

Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB: Unknown
Gender: Female
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date: 00/00/0000 00:00

Autoimmune Neuromuscular Junction Reflexive Panel

ARUP test code 3003017

Striated Muscle Antibodies, IgG Screen

Detected * (Ref Interval: <1:40)

Striated Muscle Antibodies, IgG detected. Titer results to follow.

INTERPRETIVE DATA: Striated Muscle Antibodies, IgG Screen

In the presence of acetylcholine receptor (AChR) antibody, striated muscle antibodies, which bind in a cross-striational pattern to skeletal and heart muscle tissue sections, are associated with late-onset myasthenia gravis (MG). Striated muscle antibodies recognize epitopes on three major muscle proteins, including: titin, ryanodine receptor (RyR) and Kv1.4 (an alpha subunit of voltage-gated potassium channel [VGKC]). Isolated cases of striated muscle antibodies may be seen in patients with certain autoimmune diseases, rheumatic fever, myocardial infarction, and following some cardiotomy procedures.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Acetylcholine Binding Antibody

8.0 nmol/L H (Ref Interval: 0.0-0.4)

Acetylcholine receptor binding antibody result is positive. Sample will reflex to modulating antibody testing.

H=High, L=Low, *=Abnormal, C=Critical

INTERPRETIVE INFORMATION: Acetylcholine Binding Ab

Negative 0.0 - 0.4 nmol/L
Positive 0.5 nmol/L or greater

Approximately 85-90 percent of patients with myasthenia gravis (MG) express antibodies to the acetylcholine receptor (AChR), which can be divided into binding, blocking, and modulating antibodies. Binding antibody can activate complement and lead to loss of AChR. Blocking antibody may impair binding of acetylcholine to the receptor, leading to poor muscle contraction. Modulating antibody causes receptor endocytosis resulting in loss of AChR expression, which correlates most closely with clinical severity of disease. Approximately 10-15 percent of individuals with confirmed myasthenia gravis have no measurable binding, blocking, or modulating antibodies.

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Acetylcholine Blocking Antibody

50 % H (Ref Interval: 0-26)

INTERPRETIVE INFORMATION: Acetylcholine Blocking Ab

Negative 0-26 percent blocking
Indeterminate 27-41 percent blocking
Positive 42 percent or greater blocking

Approximately 85-90 percent of patients with myasthenia gravis (MG) express antibodies to the acetylcholine receptor (AChR), which can be divided into binding, blocking, and modulating antibodies. Binding antibody can activate complement and lead to loss of AChR. Blocking antibody may impair binding of acetylcholine to the receptor, leading to poor muscle contraction. Modulating antibody causes receptor endocytosis resulting in loss of AChR expression, which correlates most closely with clinical severity of disease. Approximately 10-15 percent of individuals with confirmed myasthenia gravis have no measurable binding, blocking, or modulating antibodies.

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P/Q-Type Calcium Channel Antibody

200.0 pmol/L H (Ref Interval: 0.0-24.5)

INTERPRETIVE INFORMATION: P/Q-Type Calcium Channel Antibody

0.0 to 24.5 pmol/L Negative
24.6 to 45.6 pmol/L Indeterminate
45.7 pmol/L or greater..... Positive

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Voltage-Gated Potassium Channel Ab, Ser

200 pmol/L H (Ref Interval: 0-31)

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

Leucine-Rich, Glioma Inactivated Protein 1 Antibody, IgG and Contactin-Associated Protein-2 Antibody, IgG with Reflex to Titers added.

INTERPRETIVE INFORMATION: Voltage-Gated Potassium Channel (VGKC) Antibody, Serum

Negative 31 pmol/L or less
Indeterminate... 32 - 87 pmol/L
Positive 88 pmol/L or greater

Voltage-Gated Potassium Channel (VGKC) antibodies are associated with neuromuscular weakness as found in neuromyotonia (also known as Issacs syndrome) and Morvan syndrome. VGKC antibodies are also associated with paraneoplastic neurological syndromes and limbic encephalitis; however, VGKC antibody-associated limbic encephalitis may be associated with antibodies to leucine-rich, glioma-inactivated 1 protein (LGII) or contactin-associated protein-2 (CASPR2) instead of potassium channel antigens. A substantial number of VGKC-antibody positive cases are negative for LGII and CASPR2 IgG autoantibodies, not all VGKC complex antigens are known. The clinical significance of this test can only be determined in conjunction with the patient's clinical history and related laboratory testing.

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Titin Antibody

2.50 IV H (Ref Interval: 0.00-0.45)

INTERPRETIVE INFORMATION: Titin Antibody

Negative 0.00 - 0.45 IV
Indeterminate ... 0.46 - 0.71 IV
Positive 0.72 IV or greater

The presence of titin antibody is associated with late onset of myasthenia gravis (MG) and a variable risk for thymoma. Titin antibody may be detected in 20-40 percent of all patients with MG; higher frequency in older population as a whole.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

N-Type Calcium Channel Antibody

200.0 pmol/L H (Ref Interval: 0.0-69.9)

INTERPRETIVE INFORMATION: N-Type Calcium Channel Antibody

0.0 to 69.9 pmol/LNegative
70.0 to 110.0 pmol/LIndeterminate
110.1 pmol/L or greater.....Positive

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Ganglionic Acetylcholine Receptor Ab

200.0 pmol/L H (Ref Interval: 0.0-8.4)

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

REFERENCE INTERVAL: Ganglionic Acetylcholine Receptor Ab

Negative 0.0-8.4 pmol/L
Indeterminate. 8.5-11.6 pmol/L
Positive 11.7 pmol/L or greater

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Striated Muscle Antibodies, IgG Titer (Reflex for 0050746 STM R - Do NOT give this test code to clients - Panel Component ONLY.)

ARUP test code 2012516

Striated Muscle Antibodies, IgG Titer **1:160** * (Ref Interval: <1:40)

INTREPRETIVE INFORMATION: Striated Muscle Abs, IgG Titer

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Leucine-Rich, Glioma-Inactivated Protein 1 Antibody, IgG CBA-IFA and Contactin-Associated Protein-2 Antibody, IgG CBA-IFA with Reflex to Titers, Serum

ARUP test code 2009460

CASPR2 Ab IgG CBA-IFA Screen, Serum **Detected** * (Ref Interval: <1:10)

CASPR2 Antibody, IgG is detected. Titer results to follow.

INTERPRETIVE INFORMATION: CASPR2 Ab IgG CBA-IFA Screen, Serum

Contactin-associated protein-2 (CASPR2) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

The presence of CASPR2 IgG antibody is associated with a wide spectrum of clinical manifestations, including acquired neuromyotonia, limbic encephalitis, painful neuropathy, and Morvan syndrome. Tumors such as thymoma, small cell lung cancer, and other rarer tumors may occur. The full-spectrum of clinical disorders and tumors associated with the CASPR2 IgG antibody continues to be defined. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes CASPR2 transfected cell lines for the detection and semiquantification of the CASPR2 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

LGI1 Ab IgG CBA-IFA Screen, Serum **Detected** * (Ref Interval: <1:10)

LGI1 Antibody, IgG is detected. Titer results to follow.

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

INTERPRETIVE INFORMATION: LGI1 Ab IgG CBA-IFA Screen, Serum

Leucine-rich, glioma-inactivated 1 protein (LGI1) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

The presence of LGI1 IgG antibody is mainly associated with limbic encephalitis, hyponatremia, and myoclonic movements. LGI1 IgG antibody is rarely associated with tumors but may occur infrequently in Morvan syndrome, neuromyotonia, and idiopathic epilepsy. The full-spectrum of clinical disorders associated with the LGI1 IgG antibody continues to be defined. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes LGI1 transfected cell lines for the detection and semiquantification of the LGI1 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Contactin-Associated Protein-2 Antibody Titer, IgG by CBA-IFA, Serum (Reflex for 2009452 CASPR2 IGG Only - Not Orderable by Clients)

ARUP test code 2009454

CASPR2 Ab IgG CBA-IFA Titer, Serum

1:160 * (Ref Interval: <1:10)

INTERPRETIVE INFORMATION: CASPR2 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Leucine-Rich, Glioma-Inactivated Protein 1 Antibody Titer, IgG by CBA-IFA, Serum (Reflex for 2009456 LGI1 IGG Only - Not Orderable by Clients)

ARUP test code 2009458

LGI1 Ab IgG CBA-IFA Titer, Serum

1:160 * (Ref Interval: <1:10)

INTERPRETIVE INFORMATION: LGI1 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Acetylcholine Receptor Modulating Antibody

ARUP test code 0099521

Acetylcholine Modulating Antibody

80 % H (Ref Interval: <=45)

H=High, L=Low, *=Abnormal, C=Critical

INTERPRETIVE INFORMATION: Acetylcholine Modulating Ab

Negative 0-45 percent modulating
Positive 46 percent or greater modulating

Approximately 85-90 percent of patients with myasthenia gravis (MG) express antibodies to the acetylcholine receptor (AChR), which can be divided into binding, blocking, and modulating antibodies. Binding antibody can activate complement and lead to loss of AChR. Blocking antibody may impair binding of acetylcholine to the receptor, leading to poor muscle contraction. Modulating antibody causes receptor endocytosis resulting in loss of AChR expression, which correlates most closely with clinical severity of disease. Approximately 10-15 percent of individuals with confirmed myasthenia gravis have no measurable binding, blocking, or modulating antibodies.

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VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Striated Muscle Antibodies, IgG Screen	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Striated Muscle Antibodies, IgG Titer	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
CASPR2 Ab IgG CBA-IFA Screen, Serum	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
CASPR2 Ab IgG CBA-IFA Titer, Serum	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
LGI1 Ab IgG CBA-IFA Screen, Serum	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
LGI1 Ab IgG CBA-IFA Titer, Serum	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Binding Antibody	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Blocking Antibody	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Modulating Antibody	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
P/Q-Type Calcium Channel Antibody	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Voltage-Gated Potassium Channel Ab, Ser	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Titin Antibody	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
N-Type Calcium Channel Antibody	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Ganglionic Acetylcholine Receptor Ab	24-225-105807	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at: