

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

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 2/1/2000  
**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 <1:40 (Ref Interval: <1:40)

Striated Muscle Antibodies, IgG are not detected. No further testing will be performed.

**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.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement A: aruplab.com/CS

Acetylcholine Binding Antibody 0.4 nmol/L (Ref Interval: 0.0-0.4)

**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.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

Acetylcholine Blocking Antibody 26 % (Ref Interval: 0-26)

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

Unless otherwise indicated, testing performed at:

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.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

P/Q-Type Calcium Channel Antibody

24.5 pmol/L (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

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

Voltage-Gated Potassium Channel Ab, Ser

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

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 (LG1) or contactin-associated protein-2 (CASPR2) instead of potassium channel antigens. A substantial number of VGKC-antibody positive cases are negative for LG1 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.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement D: aruplab.com/CS

Titin Antibody

0.45 IV (Ref Interval: 0.00-0.45)

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

Unless otherwise indicated, testing performed at:

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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.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement D: aruplab.com/CS

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N-Type Calcium Channel Antibody

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

INTERPRETIVE INFORMATION: N-Type Calcium Channel Antibody

0.0 to 69.9 pmol/L .....Negative  
70.0 to 110.0 pmol/L .....Indeterminate  
110.1 pmol/L or greater.....Positive

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement D: aruplab.com/CS

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Ganglionic Acetylcholine Receptor Ab

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

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

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

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

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Unless otherwise indicated, testing performed at:

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Striated Muscle Antibodies, IgG Screen	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Binding Antibody	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Blocking Antibody	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
P/Q-Type Calcium Channel Antibody	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Voltage-Gated Potassium Channel Ab, Ser	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Titin Antibody	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
N-Type Calcium Channel Antibody	20-321-118005	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Ganglionic Acetylcholine Receptor Ab	20-321-118005	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:

ARUP LABORATORIES | 800-522-2787 | aruplab.com  
500 Chipeta Way, Salt Lake City, UT 84108-1221  
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 20-321-118005  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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