

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

Physician: Doctor, Example

**Patient: Patient, Example** 

DOB Unknown
Gender: Unknown

**Patient Identifiers:** 01234567890ABCD, 012345

**Visit Number (FIN):** 01234567890ABCD **Collection Date:** 00/00/0000 00:00

## Acetylcholine Receptor Antibodies and Striated Muscle Antibodies Reflexive Panels, and Titin Antibody

ARUP test code 2005639

Striated Muscle Antibodies, IgG Screen

<1:40

(Ref Interval: <1:40)

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

 $0.0 \, \text{nmol/L}$ 

(Ref Interval: 0.0-0.4)

Acetylcholine receptor binding antibody result is negative. Sample will not reflex to modulating antibody testing unless blocking result is 27 percent or greater.

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

4848



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

4 % (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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## Titin Antibody

<0.09 IV (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.

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VERIFIED/REPORTED DATES				
Procedure	Accession	Collected	Received	Verified/Reported
Striated Muscle Antibodies, IgG Screen	24-072-110114	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Binding Antibody	24-072-110114	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Acetylcholine Blocking Antibody	24-072-110114	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Titin Antibody	24-072-110114	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

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