500 Chipeta Way, Salt Lake City, Utah 84108-1221

phone: 801-583-2787, toll free: 800-522-2787 Tracy I. George, MD, Chief Medical Officer

Autoimmune Neurologic Disease

CV2.1 Antibody IgG

AMPA Receptor Ab IgG

GABA-B Receptor Ab IgG Detected * t6 i9

Screen by IFA

Screen, Serum

Screen, Serum

Screen, Serum

MOG Antibody IgG

Rflx Panel

Patient Age/Gender:

Unknown

Report/Verified: 15-Sep-20 11:15

<1:10

<1:10

<1:10

<1:10

Reference Interval

Patient Report

Specimen Collected: 15-Sep-20 11:12

Result

Detected * t4 i7

Detected * t5 i8

Detected * t7 i10

Neuronal Antibody	Positive * i1	 Negative
(Amphiphysin)		
Purkinje Cell/Neuronal	ANNA Detected * f1 i2	None Detected
Nuclear IgG Scrn		
Striated Muscle	Detected * t1 i3	<1:40
Antibodies, IgG Screen		
N-methyl-D-Aspartate	1:40 * f2 i4	<1:10
Receptor Ab, Serum		
CASPR2 Ab IgG Screen	Detected * t2 i5	<1:10
by IFA, Serum		
LGI1 Ab IgG Screen by	Detected * t3 i6	<1:10
IFA,Serum		

Units

Received: 15-Sep-20 11:12

SOX1 Antibody, IgG by Immunoblot, Serum	Positive * ill		Negative
Acetylcholine Binding Antibody	5.0 H i12	nmol/L	0.0-0.4
P/Q-Type Calcium Channel Antibody	30.0 H i13	pmol/L	0.0-24.5
Aquaporin-4 Receptor Antibody	3.5 H f3 i14	U/mL	<=2.9
Voltage-Gated	35 H i15	pmol/L	0-31
Potassium Channel Ab,			
Ser			
Titin Antibody	1.00 H i16	IV	0.00-0.45
N-Type Calcium Channel	L 80.0 H i17	pmol/L	0.0-69.9
Antibody			
Ganglionic	90.0 H i18	pmol/L	0.0-8.4
Acetylcholine Receptor Ab	<u>c</u>		
Glutamic Acid	6.0 H i19	IU/mL	0.0-5.0

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ARUP Laboratories

Decarboxylase Antibody

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Tracy I. George, MD

ARUP Accession:

Report Request ID: 13677791

20-259-900091

Printed:

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Patient Report

500 Chipeta Way, Salt Lake City, Utah 84108-1221

phone: 801-583-2787, toll free: 800-522-2787 Tracy I. George, MD, Chief Medical Officer

Patient Age/Gender:

Unknown

Neuronal Nuclear Ab (ANN. Titer, IgG	A) IFA Recei	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:15
	Result	Units	Reference Interval
Neuronal Nuclear Ab (ANNA) IFA Titer IgG	1:80 * ⁱ²⁰		<1:10
Neuronal Nuclear Ab IgG, Immunoblot, Ser	·	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:15
	Result	Units	Reference Interval
Neuronal Nuclear Ab (Hu) IgG,IB,Serum	Positive * i21		Negative
Neuronal Nuclear Ab (Ri) IgG,IB,Serum	Positive * i22		Negative
Neuronal Nuclear Ab (Yo) IgG,IB,Serum	Positive * i23		Negative
Neuronal Nuclear Ab (TR/DNER) IgG,IB	Positive * i24		Negative
AMPA Receptor IgG Ab Ser	um, Titer Recei	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:15
	Result	Units	Reference Interval
AMPA Receptor Ab IgG Titer,Serum	1:80 * ⁱ²⁵		<1:10
CASPR2 Ab Titer IgG by I	FA, Serum Recei	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:15
	Result	Units	Reference Interval
CASPR2 Ab IgG Titer by IFA, Serum	1:40 * ⁱ²⁶		<1:10
CV2.1 Antibody Titer, Ig	<u>.</u>	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:16
CV2.1 Antibody IgG Titer by IFA	Result 1:80 * ⁱ²⁷	Units	Reference Interval <1:10
GABA-B Receptor IgG Ab S Titer	erum, Recei	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:16
GABA-B Receptor Ab IgG Titer, Serum	Result 51:40 * ⁱ²⁸	Units	Reference Interval <1:10
LGI1 Ab Titer IgG by IFA	· · · · · · · · · · · · · · · · · · ·	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:16
LGI1 Ab IgG Titer by IFA,Serum	Result 1:40 * ⁱ²⁹	Units	Reference Interval <1:10
MOG IgG Antibody Serum,	Titer Recei Result	ved: 15-Sep-20 11:12 Units	Report/Verified: 15-Sep-20 11:16 Reference Interval
MOG Antibody IgG Titer,Serum	1:80 * ⁱ³⁰		<1:10
Striated Muscle Abs, IgG	Titer Recei	ved: 15-Sep-20 11:12	Report/Verified: 15-Sep-20 11:16
	Result	Units	Reference Interval
Striated Muscle Antibodies,IgG Titer	1:160 *		<1:40

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Tracy I. George, MD, Chief Medical Officer

Patient Age/Gender:

Unknown

Acetylcholine Receptor Modulating | Received: 15-Sep-20 11:12 Report/Verified: 15-Sep-20 11:16 Ab

Result 60 H i31 Units Reference Interval <=45 ્ર

Modulating Antibody

Neuromyelitis Optica/AQP4-IgG Received: 15-Sep-20 11:12 Report/Verified: 15-Sep-20 11:16

w/Rfx, Ser

Result Units Reference Interval

Neuromyelitis Optica/ Detected * t8 i32 <1:10

AQP4-IgG, Serum

Acetylcholine

Report/Verified: 15-Sep-20 11:16 Neuromyelitis Optica/AQP4-IgG |Received: 15-Sep-20 11:12

Titer Ser

Units Result Reference Interval

1:640 * i33 <1:10 Neuromyelitis Optica/

AQP4-IgG Titer Ser

<u>Interpretive Text</u>

t1: 15-Sep-20 11:12 (Striated Muscle Antibodies, IgG Screen)

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

t.2: 15-Sep-20 11:12 (CASPR2 Ab IgG Screen by IFA, Serum)

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

15-Sep-20 11:12 (LGI1 Ab IgG Screen by IFA, Serum) t3:

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

t4: 15-Sep-20 11:12 (CV2.1 Antibody IgG Screen by IFA)

CV2.1 Antibody, IgG is detected. Titer results to follow. Additional charges apply.

t5: 15-Sep-20 11:12 (AMPA Receptor Ab IgG Screen, Serum)

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

t6: 15-Sep-20 11:12 (GABA-B Receptor Ab IgG Screen, Serum)

GABA-BR Antibody, IgG is detected. Titer results to follow.

15-Sep-20 11:12 (MOG Antibody IgG Screen, Serum) t.7:

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

t8: 15-Sep-20 11:12 (Neuromyelitis Optica/AQP4-IgG, Serum)

Aquaporin-4 Receptor Antibody, IgG is detected. Titer results to follow.

Result Footnote

Purkinje Cell/Neuronal Nuclear IgG Scrn

Antibodies detected, therefore IFA titer and Immunoblot testing to be performed.

f2: N-methyl-D-Aspartate Receptor Ab, Serum

Antibodies to NMDA were detected; titer was performed at an additional charge.

f3: Aquaporin-4 Receptor Antibody

AQP4 antibodies detected by ELISA. IFA testing to follow.

Test Information

Neuronal Antibody (Amphiphysin)

INTERPRETIVE INFORMATION: Amphiphysin Antibody, IgG

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Laboratory Director: Tracy I. George, MD Page 3 of 11

Patient Report

500 Chipeta Way, Salt Lake City, Utah 84108-1221

phone: 801-583-2787, toll free: 800-522-2787

Tracy I. George, MD, Chief Medical Officer

Patient Report

Patient Age/Gender:

Unknown

Test Information

il: Neuronal Antibody (Amphiphysin)

Amphiphysin antibody is present in about 5 percent of patients with stiff-person syndrome and is found variably in other causes of paraneoplastic neurological syndrome (PNS). Amphiphysin antibody is mainly associated with small-cell lung cancer and breast tumors.

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

i2: Purkinje Cell/Neuronal Nuclear IgG Scrn

INTERPRETIVE INFORMATION: Purkinje Cell/Neuronal Nuclear IgG Scrn

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

i3: Striated Muscle Antibodies, IgG Screen

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 Kvl.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

i4: N-methyl-D-Aspartate Receptor Ab, Serum

INTERPRETIVE INFORMATION: N-methyl-D-Aspartate Receptor Ab, Serum Anti-NMDA receptor IgG antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune limbic encephalitis.

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

i5: CASPR2 Ab IgG Screen by IFA, Serum

INTERPRETIVE INFORMATION: CASPR2 Ab IgG w/Reflex to Titer,

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

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Tracy I. George, MD, Chief Medical Officer

Patient Report

Patient Age/Gender:

Unknown

Test Information

i5: CASPR2 Ab IgG Screen by IFA, Serum

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 contactin-associated protein-2 (CASPR2) transfected cell lines for the detection and semi-quantification of the CASPR2 IgG antibody.

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

i6: LGI1 Ab IgG Screen by IFA, Serum

INTERPRETIVE INFORMATION: LGI1 Ab IgG w/Reflex to Titer,

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 leucine-rich, glioma-inactivated 1 protein (LGI1) transfected cell lines for the detection and semi-quantification of the LGI1 IgG antibody.

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

i7: CV2.1 Antibody IgG Screen by IFA

INTERPRETIVE INFORMATION: CV2.1 Antibody IgG Screen by IFA

CV2.1 antibodies aid in discriminating between chronic paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-CV2.1 is associated with small-cell lung cancer and thymoma.

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

i8: AMPA Receptor Ab IgG Screen, Serum

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG Screen,

Serum

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500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Tracy I. George, MD

ARUP Accession: 20-259-900091 **Report Request ID**: 13677791

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500 Chipeta Way, Salt Lake City, Utah 84108-1221

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Tracy I. George, MD, Chief Medical Officer

Patient Report

Patient Age/Gender:

Unknown

Test Information

i8: AMPA Receptor Ab IgG Screen, Serum

Alpha-amino-3-hydroxy-5-methyl-4-isoxazoleproprionic acid receptor (AMPAR) antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune encephalitis.

This indirect fluorescent antibody assay utilizes AMPAR transfected cell lines for the detection and semi-quantification of AMPAR IgG antibody.

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

i9: GABA-B Receptor Ab IgG Screen, Serum

INTERPRETIVE INFORMATION: GABA Receptor Ab IgG Screen,

Serum

Gamma-amino butyric acid receptor, type B (GABA-BR) antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune encephalitis.

This indirect fluorescent antibody assay utilizes GABA-BR transfected cell lines for the detection and semi-quantification of GABA-BR IgG antibody.

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

il0: MOG Antibody IgG Screen, Serum

INTERPRETIVE INFORMATION: MOG Antibody IgG Screen, Serum

Myelin oligodendrocyte glycoprotein (MOG) antibody is found in a subset of patients with neuromyelitis optica spectrum disorders including optic neuritis and transverse myelitis, brainstem encephalitis and acute disseminated encephalomyelitis. Persistence of antibody positivity may be associated with a relapsing course. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of CNS demyelinating disease or autoimmune encephalitis.

This indirect fluorescent antibody assay utilizes full-length MOG transfected cell lines for the detection and semi-quantification of MOG IgG antibody.

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

ii1: SOX1 Antibody, IgG by Immunoblot, Serum INTERPRETIVE INFORMATION: SOX1 Antibody, IgG by Immunoblot,

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500 Chipeta Way, Salt Lake City, UT 84108

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500 Chipeta Way, Salt Lake City, Utah 84108-1221

phone: 801-583-2787, toll free: 800-522-2787
Tracy I. George, MD, Chief Medical Officer

Patient Report

Patient Age/Gender: Unknown

Test Information

ill: SOX1 Antibody, IgG by Immunoblot, Serum
Serum

SOX1 antibody is detected in patients with Lambert-Eaton myasthenic syndrome (LEMS) and in patients with paraneoplastic cerebellar degeneration (PCD), paraneoplastic and nonparaneoplastic neuropathy. SOX1 antibody is associated with small cell lung cancer. A negative test result does not rule out a diagnosis of LEMS or other causes of paraneoplastic neurological syndrome.

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

i12: Acetylcholine Binding Antibody

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

il3: P/Q-Type Calcium Channel Antibody

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

i14: Aquaporin-4 Receptor Antibody

INTERPRETIVE INFORMATION: Aquaporin-4 Receptor Antibody

Negative 2.9 U/mL or less Positive 3.0 U/mL or greater

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Patient Report

Unknown

Patient Age/Gender:

Test Information

i14: Aquaporin-4 Receptor Antibody

Approximately 75 percent of patients with neuromyelitis optica (NMO) express antibodies to the aquaporin-4 (AQP4)receptor. Diagnosis of NMO requires the presence of longitudinally extensive acute myelitis (lesions extending over 3 or more vertebral segments) and optic neuritis. While absense of antibodies to the AQP4 receptor does not rule out the diagnosis of NMO, presence of this antibody is diagnostic for NMO.

i15: Voltage-Gated Potassium Channel Ab, Ser

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 (LGI1) or contactin-associated protein-2 (CASPR2) instead of potassium channel antigens. A substantial number of VGKC-antibody positive cases are negative for LGI1 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

i16: Titin Antibody

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

i17: N-Type Calcium Channel Antibody

INTERPRETIVE INFORMATION: N-Type Calcium Channel Antibody

0.0 to 69.9 pmol/LNegative

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500 Chipeta Way, Salt Lake City, UT 84108 Laboratory Director: Tracy I. George, MD **Printed:** 15-Sep-20 13:17

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Patient Report

Unknown

Patient Age/Gender:

Test Information

i17: N-Type Calcium Channel Antibody

70.0 to 110.0 pmol/LIndeterminate

110.1 pmol/L or greater.....Positive

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

il8: Ganglionic Acetylcholine Receptor Ab

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

i19: Glutamic Acid Decarboxylase Antibody

INTERPRETIVE INFORMATION: Glutamic Acid Decarboxylase Antibody

A value greater than 5.0 IU/mL is considered positive for Glutamic Acid Decarboxylase Antibody (GAD Ab). This assay is intended for the semi-quantitative determination of the GAD Ab in human serum. Results should be interpreted within the context of clinical symptoms.

i20: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

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

i21: Neuronal Nuclear Ab (Hu) IgG, IB, Serum

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab IgG,

Immunoblot, Ser

This test detects IgG antineuronal antibodies to Hu, Ri, Yo and Tr (DNER) antigens.

Antineuronal antibodies serve as markers that aid in discriminating between a true paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-Hu (antineuronal nuclear antibody, type I) is associated with small-cell lung cancer. Anti-Ri (antineuronal nuclear antibody, type II) is associated with neuroblastoma in children and with fallopian tube and breast cancer in adults. Anti-Yo (anti-Purkinje cell cytoplasmic antibody) is associated with ovarian and breast cancer. Anti-Tr(DNER) is associated with Hodgkin's lymphoma.

The presence of one or more of these antineuronal antibodies supports a clinical diagnosis of PND and should lead to a focused search for the underlying neoplasm.

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

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phone: 801-583-2787, toll free: 800-522-2787

Tracy I. George, MD, Chief Medical Officer

Patient Age/Gender:

Patient Report

Unknown

Test Information

i22: Neuronal Nuclear Ab (Ri) IgG, IB, Serum

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Ri) IgG, IB,

Serum

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

i23: Neuronal Nuclear Ab (Yo) IgG, IB, Serum

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Yo) IgG, IB,

Serum

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

Neuronal Nuclear Ab (TR/DNER) IgG, IB i24:

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (TR/DNER)

IqG, IB

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

i25: AMPA Receptor Ab IgG Titer, Serum

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG Titer, Serum

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

i26: CASPR2 Ab IgG Titer by IFA, Serum

INTERPRETIVE INFORMATION: CASPR2 Ab Titer IgG by IFA,

Serum

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

i27: CV2.1 Antibody IgG Titer by IFA

INTERPRETIVE INFORMATION: CV2.1 Antibody IgG Titer by IFA

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

GABA-B Receptor Ab IgG Titer, Serum i28:

INTERPRETIVE INFORMATION: GABA-B Receptor Ab IgG Titer,

Serum

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

i29: LGI1 Ab IgG Titer by IFA, Serum

INTERPRETIVE INFORMATION: LGI1 Ab Titer IgG by IFA,

Serum

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

i30: MOG Antibody IgG Titer, Serum

INTERPRETIVE INFORMATION: MOG Antibody IqG Titer, Serum

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

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500 Chipeta Way, Salt Lake City, Utah 84108-1221

phone: 801-583-2787, toll free: 800-522-2787 Tracy I. George, MD, Chief Medical Officer Patient Report

Patient Age/Gender: Unknown

Test Information

i31: Acetylcholine Modulating Antibody

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.

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

i32: Neuromyelitis Optica/AQP4-IgG, Serum

INTERPRETIVE INFORMATION: Neuromyelitis Optica/AQP4-IgG

w/Rfx, Ser

Diagnosis of neuromyelitis optica (NMO) requires the presence of longitudinally extensive acute myelitis (lesions extending over 3 or more vertebral segments) and optic neuritis. Approximately 75 percent of patients with NMO express antibodies to the aquaporin-4 (AQP4) receptor. While the absence of AQP4 receptor antibodies does not rule out a diagnosis of NMO, presence of this antibody is diagnostic for NMO.

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

i33: Neuromyelitis Optica/AQP4-IgG Titer Ser

INTERPRETIVE INFORMATION: Neuromyelitis Optica/AQP4-IgG

Titer Ser

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

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H=High, i=Test Information, L=Low, t=Interpretive Text, @=Performing Lab

Unless otherwise indicated, testing performed at:

ARUP Laboratories

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Tracy I. George, MD

ARUP Accession: 20-259-900091 **Report Request ID:** 13677791

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