## ARUP LABORATORIES | aruplab.com

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/Sex: 22 years Male

Specimen	Collected:	10-Jun-22	11:25

Motor Sensory Neuropathy Comprehensive	Received:	10-Jun-22 11:48	Report/Verified: 16-Jun-22 13:34
Procedure	Result	Units	Reference Interval
MAG Antibody, IgM Elisa	2500 H il	TU	0-999
SGPG Antibody, IgM	205.00 H i2	IV	0.00-0.99
Purkinje Cell/Neuronal	None Detected fl i3		None Detected
Nuclear IgG Scrn			
Asialo-GM1 Antibodies,	250 <sup>H</sup>	IV	0-50
IgG/IgM			
GM1 Antibodies, IgG/IgM	1 100 <sup>H</sup>	IV	0-50
GDla Antibodies,IgG/	100 <sup>H</sup>	IV	0-50
IgM			
GD1b Antibodies,IgG/	100 <sup>H</sup>	IV	0-50
IgM			
GQlb Antibodies,IgG/	100 H i4	IV	0-50
IgM			
EER Motor Sensory	See Note f2		
Neuropathy Comp			
Immunoglobulin G	2400 H i5	mg/dL	768-1632
Immunoglobulin A	50 <sup>L i6</sup>	mg/dL	68-408
Immunoglobulin M	25 <sup>L i7</sup>	mg/dL	35-263
Total Protein, Serum	9.0 <sup>H</sup>	g/dL	6.3-8.2
Albumin	4.75	g/dL	3.75-5.01
Alpha 1 Globulin	0.30	g/dL	0.19-0.46
Alpha 2 Globulin	0.70	g/dL	0.48-1.05
Beta Globulin	0.60	g/dL	0.48-1.10
Gamma	2.50 H	g/dL	0.62-1.51
Monoclonal Protein	2.50	g/dL	
Immunofixation	IFE Done		
SPEP/IFE	See Note f3		
Interpretation			

### Result Footnote

f1: Purkinje Cell/Neuronal Nuclear IgG Scrn

ANNA-1, ANNA-2, PCCA-1 or PCCA-Tr(DNER) antibodies not detected. No further testing will be performed.

f2: EER Motor Sensory Neuropathy Comp Authorized individuals can access the ARUP Enhanced Report using the following link:

f3: SPEP/IFE Interpretation

M-spike in the gamma region. The monoclonal protein peak accounts for 2.50~g/dL of the total 2.50~g/dL of protein in the gamma region. IFE gel pattern shows an IgG type kappa monoclonal protein.

\*=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: 22-161-900078

Report Request ID: 16280785

**Printed:** 24-Jun-22 12:01

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#### <u>Test Information</u>

il: MAG Antibody, IgM Elisa

INTERPRETIVE INFORMATION: MAG Antibody, IgM ELISA

An elevated IgM antibody concentration greater than 999 TU against myelin-associated glycoprotein (MAG) suggests active demyelination in peripheral neuropathy. A normal concentration (less than 999 TU) generally rules out an anti-MAG antibody-associated peripheral neuropathy.

TU=Titer Units

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.

i2: SGPG Antibody, IgM

INTERPRETIVE INFORMATION: SGPG Antibody, IgM

The majority of sulfate-3-glucuronyl paragloboside (SGPG) IgM-positive sera will show reactivity against MAG. Patients who are SGPG IgM positive and MAG IgM negative may have multi-focal motor neuropathy with conduction block.

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i3: Purkinje Cell/Neuronal Nuclear IgG Scrn

INTERPRETIVE INFORMATION: Purkinje Cell/Neuronal Nuclear IgG Scrn

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i4: GQlb Antibodies, IgG/IgM

INTERPRETIVE INFORMATION: Ganglioside (Asialo-GM1, GM1, GM2, GD1a, GD1b, and GQ1b) Antibodies, IgG/IgM

29 IV or less: Negative 30-50 IV: Equivocal 51-100 IV: Positive

101 IV or greater: Strong Positive

Ganglioside antibodes are associated with diverse peripheral neuropathies. Elevated antibody levels to ganglioside-monosialic acid (GM1), and the neutral glycolipid, asialo GM1 are associated with motor or sensorimotor neuropathies, particularly

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# Test Information

i4: GQlb Antibodies, IgG/IgM

multifocal motor neuropathy. Anti-GM1 may occur as IgM (polyclonal or monoclonal) or IgG antibodies. These antibodies may also be found in patients with diverse connective tissue diseases as well as normal individuals. GD1a antibodies are associated with different variants of Guillain-Barre syndrome (GBS) particularly acute motor axonal neuropathy while GD1b antibodies are predominantly found in sensory ataxic neuropathy syndrome. Anti-GQ1b antibodies are seen in more than 80 percent of patients with Miller-Fisher syndrome and may be elevated in GBS patients with ophthalmoplegia. The role of isolated anti-GM2 antibodies is unknown. These tests by themselves are not diagnostic and should be used in conjunction with other clinical parameters to confirm disease.

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i5: Immunoglobulin G

REFERENCE INTERVAL: Immunoglobulin G

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory (aruplab.com).

i6: Immunoglobulin A

REFERENCE INTERVAL: Immunoglobulin A

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory (aruplab.com).

i7: Immunoglobulin M

REFERENCE INTERVAL: Immunoglobulin M

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory (aruplab.com).

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