

Specimen Collected: 20-Dec-23 12:01

Motor Neuropathy Panel	Received: 20-Dec-23 12:01	Report/Verified: 20-Dec-23 12:10	
Procedure	Result	Units	Reference Interval
MAG Antibody, IgM Elisa	2000 <sup>H i1</sup>	TU	[0-999]
SGPG Antibody, IgM	4.99 <sup>H i2</sup>	IV	[0.00-0.99]
Asialo-GM1 Antibodies, IgG/IgM	500 <sup>H</sup>	IV	[0-50]
GM1 Antibodies, IgG/IgM	250 <sup>H</sup>	IV	[0-50]
GD1a Antibodies, IgG/IgM	300 <sup>H</sup>	IV	[0-50]
GD1b Antibodies, IgG/IgM	300 <sup>H</sup>	IV	[0-50]
GQ1b Antibodies, IgG/IgM	300 <sup>H i3</sup>	IV	[0-50]
Immunoglobulin G	4000 <sup>H</sup>	mg/dL	[768-1632]
Immunoglobulin A	20 <sup>L</sup>	mg/dL	[68-408]
Immunoglobulin M	10 <sup>L</sup>	mg/dL	[35-263]
Total Protein, Serum	8.6 <sup>H</sup>	g/dL	[6.3-8.2]
Albumin	3.50 <sup>L</sup>	g/dL	[3.75-5.01]
Alpha 1 Globulin	0.18 <sup>L</sup>	g/dL	[0.19-0.46]
Alpha 2 Globulin	0.47 <sup>L</sup>	g/dL	[0.48-1.05]
Beta Globulin	0.39 <sup>L</sup>	g/dL	[0.48-1.10]
Gamma	4.06 <sup>H</sup>	g/dL	[0.62-1.51]
Monoclonal Protein	4.06 <sup>H</sup>	g/dL	[<=0.00]
Immunofixation	IFE Done		
SPEP/IFE Interpretation	See Note <sup>f1</sup>		
EER Motor Neuropathy Panel	See Note		

**Result Footnote**

f1: SPEP/IFE Interpretation  
Monoclonal spike in the gamma region. IFE gel pattern shows an IgG type kappa monoclonal protein.

**Test Information**

i1: 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

\*=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: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-354-900053

Report Request ID: 18510310

Printed: 20-Dec-23 12:16

Page 1 of 2

**Test Information**

i2: 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: GQ1b 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 antibodies 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 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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Page 2 of 2