ARUP Laboratories

500 Chipeta Way – Salt Lake City, UT 84108 (800)522-2787 - www.aruplab.com Julio C. Delgado, M.D. M.S., Director of Laboratories Patient Age/Gender: 50 years Male Printed: 20-Jun-19 12:53:53

				Reported/
Procedure	Result	Units	Ref Interval	Accession Collected Received Verified
MAG Antibody, IgM Elisa	500	TU	[0-999]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
SGPG Antibody, IgM	0.50	IV	[0.00-0.99]	10:12:00 10:12:00 12:05:57 19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
		ΤV	• · · · · · · · · · · · · · · · · · · ·	10:12:00 10:12:00 12:05:57
Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected		[None	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19 10:12:00 10:12:00 12:05:57
	f		Detected]	
Asialo-GM1 Antibodies, IgG/IgM	25	IV	[0-50]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19 10:12:00 10:12:00 12:05:57
GM1 Antibodies, IgG/IgM	25	IV	[0-50]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
, 3 . 3				10:12:00 10:12:00 12:05:57
GD1a Antibodies, IgG/IgM	25	IV	[0-50]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19 10:12:00 10:12:00 12:05:57
GD1b Antibodies, IgG/IgM	25	IV	[0-50]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
				10:12:00 10:12:00 12:05:57
GQlb Antibodies, IgG/IgM	25	IV	[0-50]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19 10:12:00 10:12:00 12:05:57
EER Motor Sensory Neuropathy Comp	See Note f			19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
				10:12:00 10:12:00 12:05:57
Immunoglobulin G	800	mg/dL	[768-1,632]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19 10:12:00 10:12:00 12:05:57
Immunoglobulin A	70	mg/dL	[68-408]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
- 111' W	F.0	- / 1-	[25 062]	10:12:00 10:12:00 12:05:57 19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
Immunoglobulin M	50	mg/dL	[35-263]	10:12:00 10:12:00 12:05:57
Total Protein, Serum	6.2 L	g/dL	[6.3-8.2]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
Albumin	4.00	/ al T	[3.75-5.01]	10:12:00 10:12:00 12:05:57 19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
AIDUILII	4.00	g/dL	[3./5-5.01]	10:12:00 10:12:00 12:05:57
Alpha 1 Globulin	0.25	g/dL	[0.19-0.46]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
Alpha 2 Globulin	0.50	g/dL	[0.48-1.05]	10:12:00 10:12:00 12:05:57 19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
Alpha 2 Globullii	0.50	g/aL	[0.46-1.05]	10:12:00 10:12:00 12:05:57
Beta Globulin	0.50	g/dL	[0.48-1.10]	19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
Gamma	0.70	q/dL	[0.62-1.51]	10:12:00 10:12:00 12:05:57 19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
	0.70	9/ un	[0.02-1.51]	10:12:00 10:12:00 12:05:57
Immunofixation	IFE Done			19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19 10:12:00 10:12:00 12:05:57
SPEP/IFE Interpretation	See Note			19-158-900105 07-Jun-19 07-Jun-19 07-Jun-19
SIBI, III INCCIPICCUCION	DCC IVOCC			10:12:00 10:12:00 12:05:57

07-Jun-19 10:12:00 Purkinje Cell/Neuronal Nuclear IgG Scrn:

ANNA-1, ANNA-2 or PCA-1 antibodies not detected, confirmatory testing for Hu (ANNA-1), Ri (ANNA-2) or Yo (PCA-1) IgG antibodies will not be performed.

07-Jun-19 10:12:00 EER Motor Sensory Neuropathy Comp: Access ARUP Enhanced Report using either link below:

-Direct access:

-Enter Username, Password: https://cll-erpt.aruplab.com Username: Password:

07-Jun-19 10:12:00 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

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

Chart ID: 13343302 Page 1 of 3

^{*} Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab

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(800)522-2787 - www.aruplab.com Julio C. Delgado, M.D. M.S., Director of Laboratories Patient Age/Gender: 50 years Male Printed: 20-Jun-19 12:53:53

07-Jun-19 10:12:00 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.

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

07-Jun-19 10:12:00 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

07-Jun-19 10:12:00 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 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.

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

07-Jun-19 10:12:00 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).

07-Jun-19 10:12:00 Immunoglobulin A: REFERENCE INTERVAL: Immunoglobulin A

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Chart ID: 13343302 Page 2 of 3

Example Report

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Patient Age/Gender: 50 years Male Printed: 20-Jun-19 12:53:53

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

07-Jun-19 10:12:00 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).

Chart ID: 13343302 Page 3 of 3