

Reporting Title: Motor Neuropathy Panel

Performing Location: ARUP Laboratories

Specimen Requirements:

Specimen Type: Serum

Container/Tube: Serum Separator Tube (SST)

Specimen Volume: 4 mL

Collection Instructions: Draw blood in a serum gel tube(s). Spin down and send 4 mL serum refrigerated in plastic vial.

Specimen Type	Temperature	Time	Special Container
Serum SST	Refrigerated (preferred)	7 days	
	Frozen	30 days	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
Z4539	MAG Antibody, IgM	Alphanumeric		17314-6
Z4540	SGPG Antibody, IgM	Alphanumeric		31666-1
Z4541	Asialo-GM1 Antibodies, IgG-IgM	Alphanumeric		44737-5
Z4542	GM1 Antibodies, IgG-IgM	Alphanumeric		63244-8
Z4543	GD1a Antibodies, IgG-IgM	Alphanumeric		48656-3
Z4544	GD1b Antibodies, IgG-IgM	Alphanumeric		26870-6
Z4545	GQ1b Antibodies, IgG-IgM	Alphanumeric		31674-5
Z4546	Immunoglobulin G	Alphanumeric		2465-3
Z4547	Immunoglobulin A	Alphanumeric		2458-8
Z4548	Immunoglobulin M	Alphanumeric		2472-9
Z4549	Total Protein, Serum	Alphanumeric		2885-2
Z4550	Albumin	Alphanumeric		1751-7
Z4551	Alpha 1 Globulin	Alphanumeric		2865-4
Z4552	Alpha 2 Globulin	Alphanumeric		2868-8
Z4553	Beta Globulin	Alphanumeric		2871-2
Z4554	Gamma	Alphanumeric		2874-6
Z4555	Immunofixation	Alphanumeric		25700-6
Z4556	SPEP-IFE Interpretation	Alphanumeric		49275-1
Z4557	EER Motor Neuropathy Panel	Alphanumeric		11526-1
Z6250	Monoclonal Protein	Alphanumeric		Not Provided

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

82784 x 3
83516 x 7
84155
84165
86334

Reference Values:

Myelin Associated Glycoprotein (MAG) Antibody, IgM: 0-999
Less than 1000 TU

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

Sulfate-3-Glucuronyl Paragloboside (SGPG) Antibody, IgM: 0.00-0.99
Less than 1.00 IV

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.

Asialo-GM1 Antibodies, IgG/IgM: 0-50 IV
29 IV or less: Negative
30-50 IV: Equivocal
51-100 IV: Positive
101 IV or greater: Strong Positive

GM1 Antibodies, IgG/IgM: 0-50 IV
29 IV or less: Negative
30-50 IV: Equivocal
51-100 IV: Positive
101 IV or greater: Strong Positive

GD1a Antibodies, IgG/IgM: 0-50 IV
29 IV or less: Negative
30-50 IV: Equivocal
51-100 IV: Positive
101 IV or greater: Strong Positive

GD1b Antibodies, IgG/IgM: 0-50 IV
29 IV or less: Negative
30-50 IV: Equivocal
51-100 IV: Positive
101 IV or greater: Strong Positive

GQ1b Antibodies, IgG/IgM: 0-50 IV
29 IV or less: Negative

30-50 IV: Equivocal
51-100 IV: Positive
101 IV or greater: Strong Positive

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

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.

Immunoglobulin G:

0-2 years: 242-1108 mg/dL
3-4 years: 485-1160 mg/dL
5-9 years: 514-1672 mg/dL
10-14 years: 581-1652 mg/dL
15-18 years: 479-1433 mg/dL
19 years and older: 768-1632 mg/dL

Immunoglobulin A:

0-2 years: 2-126 mg/dL
3-4 years: 14-212 mg/dL
5-9 years: 52-226 mg/dL
10-14 years: 42-345 mg/dL
15-18 years: 60-349 mg/dL
19 years and older: 68-408 mg/dL

Immunoglobulin M:

0-2 years: 21-215 mg/dL
3-4 years: 26-155 mg/dL
5-9 years: 26-188 mg/dL
10-14 years: 47-252 mg/dL
15-18 years: 26-232 mg/dL
19 years and older: 35-263 mg/dL

Total Protein, Serum:

Refer to report. Reference intervals may vary based on instrumentation.

Albumin:

3.75-5.01 g/dL

Alpha 1 Globulin:
0.19-0.46 g/dL

Alpha 2 Globulin:
0.48-1.05 g/dL

Beta Globulin:
0.48-1.10 g/dL

Gamma:
0.62-1.51 g/dL

Monoclonal Protein:
<=0.00 g/dL