MAYO CLINIC LABORATORIES

NEW REFERRAL TEST

Notification Date: July 14, 2022
Effective Date: August 15, 2022

Motor Neuropathy Panel

Explanation: The following new orderable, referred to Arup Laboratories, will be available on August 15, 2022.

Test ID: FMNPP

Method:
Semi-Quantitative Enzyme-Linked Immunosorbent Assay
Quantitative Immunoturbidimetry
Quantitative Capillary Electrophoresis
Qualitative Immunofixation Electrophoresis
Quantitative Spectrophotometry
Colorimetric Assay

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

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

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

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

GQ1b Antibodies, IgG/IgM:
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.

Total Protein, Serum:
6.3-8.2 g/dL

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

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 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 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

Monoclonal Protein:
Units: g/dL

Myelin Associated Glycoprotein (MAG) Antibody, IgM:
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:
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.

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.

Minimum Volume: 2 mL

Specimen Stability Information:

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

Fee:
$583.25

CPT Code(s):
83516 x7; 82784 x3; 84155; 84165; 86334

Day(s) Setup: Sunday through Saturday

Report Available: 3 - 12 days

Questions:
Contact Amy Bluhm, MCL Referrals Supervisor, at 800-533-1710.