

Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB: 12/31/1752
Sex: Unknown
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date: 00/00/0000 00:00

Motor and Sensory Neuropathy Evaluation with Immunofixation Electrophoresis and Reflex to Titer and Neuronal Immunoblot

ARUP test code 2007967

MAG Antibody, IgM Elisa

1500 TU H (Ref Interval: 0-999)

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.

SGPG Antibody, IgM

2.00 IV H (Ref Interval: 0.00-0.99)

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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Purkinje Cell/Neuronal Nuclear IgG Scrn

PCCA Detected * (Ref Interval: None Detected)

Antibodies detected, therefore IFA titer and Immunoblot testing to be performed.

INTERPRETIVE INFORMATION: Purkinje Cell/Neuronal Nuclear IgG Scrn

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H=High, L=Low, *=Abnormal, C=Critical

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ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 26-036-117340
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
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performed in a CLIA certified laboratory and is intended for clinical purposes.

| | | | |
|--------------------------------|---------------|----------|----------------------|
| Asialo-GM1 Antibodies, IgG/IgM | 88 IV | H | (Ref Interval: 0-50) |
| GM1 Antibodies, IgG/IgM | 120 IV | H | (Ref Interval: 0-50) |
| GD1a Antibodies, IgG/IgM | 352 IV | H | (Ref Interval: 0-50) |
| GD1b Antibodies, IgG/IgM | 125 IV | H | (Ref Interval: 0-50) |
| GQ1b Antibodies, IgG/IgM | 65 IV | H | (Ref Interval: 0-50) |

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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| | | | |
|-----------------------------------|------------------|----------|---------------------------|
| EER Motor Sensory Neuropathy Comp | EERUnavailable | | |
| Immunoglobulin G | 150 mg/dL | | |
| Immunoglobulin A | 1500 mg/dL | | |
| Immunoglobulin M | 300 mg/dL | | |
| Total Protein, Serum | 36.0 g/dL | | |
| Albumin | 6.50 g/dL | H | (Ref Interval: 3.75-5.01) |
| Alpha 1 Globulin | 2.00 g/dL | H | (Ref Interval: 0.19-0.46) |
| Alpha 2 Globulin | 3.00 g/dL | H | (Ref Interval: 0.48-1.05) |

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|-------------------------|------------|---|---------------------------|
| Beta Globulin | 2.00 g/dL | H | (Ref Interval: 0.48-1.10) |
| Gamma | 3.00 g/dL | H | (Ref Interval: 0.62-1.51) |
| Monoclonal Protein | 55.00 g/dL | H | (Ref Interval: <=0.00) |
| Immunofixation | IFE Done | | |
| SPEP/IFE Interpretation | See Note | | |

Purkinje Cell Antibody, Titer (Do NOT give this test code to clients - Panel Component ONLY. Refer to 2007961 PCCA/ANNA)

ARUP test code 0059441

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---|-----------------------|
| Purkinje Cell Antibody Titer IgG | 1:160 | * | (Ref Interval: <1:10) |
| <p>INTERPRETIVE INFORMATION: Purkinje Cell Ab Titer, IgG</p> <p>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.</p> | | | |

Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot, Serum

ARUP test code 3002917

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|--------------------------|
| Neuronal Nuclear Ab (Hu) IgG, IB, Serum | Low Positive | * | (Ref Interval: Negative) |
| <p>Low positive reactivity to Hu detected. Strong clinical correlation is recommended.</p> <p>INTERPRETIVE INFORMATION: Neuronal Nuclear Ab IgG, Immunoblot, Ser</p> <p>This test detects IgG antineuronal antibodies to Hu, Ri, Yo and Tr (DNER) antigens.</p> <p>Antineuronal antibodies serve as markers that aid in discriminating between a true paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-Hu (antineuronal nuclear antibody, type I) is associated with small-cell lung cancer. Anti-Ri (antineuronal nuclear antibody, type II) is associated with neuroblastoma in children and with fallopian tube and breast cancer in adults. Anti-Yo (anti-Purkinje cell cytoplasmic antibody) is associated with ovarian and breast cancer. Anti-Tr(DNER) is associated with Hodgkin's lymphoma.</p> <p>The presence of one or more of these antineuronal antibodies detected by both immunoblot (IB) and immunofluorescence (IFA) supports a clinical diagnosis of PND and should lead to a focused search for the underlying neoplasm. A positive IB result but negative IFA result is of questionable clinical significance. Thus, strong clinical correlation is recommended.</p> <p>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.</p> | | | |

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Neuronal Nuclear Ab (Ri) IgG, IB, Serum

Positive * (Ref Interval: Negative)

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Ri) IgG, IB, Serum
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.

Purkinje Cell Ab (Yo) IgG, IB, Ser

Positive * (Ref Interval: Negative)

INTERPRETIVE INFORMATION: Purkinje Cell Ab (Yo) IgG, IB, Ser
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.

Purkinje Cell Ab (TR/DNER) IgG, IB, Ser

High Positive * (Ref Interval: Negative)

INTERPRETIVE INFORMATION: Purkinje Cell Ab (TR/DNER) IgG, IB, Ser
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VERIFIED/REPORTED DATES

| Procedure | Accession | Collected | Received | Verified/Reported |
|-----------------------------------------|---------------|------------------|------------------|-------------------|
| MAG Antibody, IgM Elisa | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| SGPG Antibody, IgM | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Purkinje Cell Antibody Titer IgG | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Purkinje Cell/Neuronal Nuclear IgG Scrn | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Asialo-GM1 Antibodies, IgG/IgM | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| GM1 Antibodies, IgG/IgM | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| GD1a Antibodies, IgG/IgM | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| GD1b Antibodies, IgG/IgM | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| GQ1b Antibodies, IgG/IgM | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| EER Motor Sensory Neuropathy Comp | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Neuronal Nuclear Ab (Hu) IgG, IB, Serum | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Neuronal Nuclear Ab (Ri) IgG, IB, Serum | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Purkinje Cell Ab (Yo) IgG, IB, Ser | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Purkinje Cell Ab (TR/DNER) IgG, IB, Ser | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Immunoglobulin G | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Immunoglobulin A | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Immunoglobulin M | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Total Protein, Serum | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |

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| | | | | |
|-------------------------|---------------|------------------|------------------|------------------|
| Albumin | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Alpha 1 Globulin | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Alpha 2 Globulin | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Beta Globulin | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Gamma | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Monoclonal Protein | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| Immunofixation | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |
| SPEP/IFE Interpretation | 26-036-117340 | 00/00/0000 00:00 | 00/00/0000 00:00 | 00/00/0000 00:00 |

END OF CHART

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