ARUP LABORATORIES | aruplab.com
500 Chipeta Way, Salt Lake City, Utah 84108-1221
phone: 801-583-2787, toll free: 800-522-2787
Jonathan R. Genzen, MD, PhD, Chief Medical Officer

PATIENT REPORT

Patient Age/Sex: Unknown

Specimen Collected: 18-Dec-23 09:39

Autoimmune Myelopathy Panel, Serum | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
Neuronal Antibody (Amphiphysin)	**Positive** * i1		[Negative]
Purkinje Cell/Neuronal Nuclear IgG Scrn	**ANNA Detected** * f1 i2		[None Detected]
NMO/AQP4 Ab IgG CBA-IFA Screen, Serum	**Detected** * t1 i3		[<1:10]
CV2 Ab IgG CBA-IFA Screen,Serum	**Detected** * t2 i4		[<1:100]
GABA-BR Ab IgG CBA-IFA Scrn,Ser	**Detected** * t3 i5		[<1:10]
MOG Ab IgG CBA-IFA Screen,Serum	**Detected** * t4 i6		[<1:10]
SOX1 Antibody,IgG by Immunoblot, Serum	**High Positive** * i7		[Negative]
DPPX Ab IgG CBA-IFA Screen,Serum	**Detected** * t5 i8		[<1:10]
mGluR1 Ab IgG CBA-IFA Screen, Serum	**Detected** * t6 i9		[<1:10]
Glutamic Acid Decarboxylase Antibody	**15.0** H i10	IU/mL	[0.0-5.0]

Neuronal Nuclear Ab (ANNA) IFA Titer,IgG | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
Neuronal Nuclear Ab (ANNA) IFA Titer IgG	**1:640** * i11		[<1:10]

Neuronal Nuclear Ab IgG, Immunoblot, Ser | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
Neuronal Nuclear Ab (Hu) IgG,IB, Serum	**Positive** * i12		[Negative]
Neuronal Nuclear Ab (Ri) IgG,IB, Serum	**Positive** * i13		[Negative]
Neuronal Nuclear Ab (Yo) IgG,IB, Serum	**Positive** * i14		[Negative]
Neuronal Nuclear Ab (TR/DNER) IgG,IB	**Positive** * i15		[Negative]

NMO/AQP4-Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
NMO/AQP4 Ab IgG CBA-IFA Titer, Serum	**1:80** * i16		[<1:10]

CV2 Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
CV2 Ab IgG CBA-IFA Titer,Serum	**1:800** * i17		[<1:100]

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

DPPX Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
DPPX Ab IgG CBA-IFA Titer,Serum	**1:320** * i18		[<1:10]

GABA-B Rptr Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
GABA-BR Ab IgG CBA-IFA Titer,Ser	**1:640** * i19		[<1:10]

mGluR1 Ab IgG CBA-IFA Titer, Serum | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
mGluR1 Ab IgG CBA-IFA Titer, Serum	**1:80** * i20		[<1:10]

MOG Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:55**

Procedure	Result	Units	Reference Interval
MOG Ab IgG CBA-IFA Titer,Serum	**1:160** * i21		[<1:10]

Interpretive Text

t1: 18-Dec-23 09:39 (NMO/AQP4 Ab IgG CBA-IFA Screen, Serum)
Aquaporin-4 Receptor Antibody, IgG is detected. Titer results to follow.

t2: 18-Dec-23 09:39 (CV2 Ab IgG CBA-IFA Screen, Serum)
CV2 Antibody, IgG is detected. Titer results to follow. Additional charges apply.

t3: 18-Dec-23 09:39 (GABA-BR Ab IgG CBA-IFA Scrn, Ser)
GABA-BR Antibody, IgG is detected. Titer results to follow.

t4: 18-Dec-23 09:39 (MOG Ab IgG CBA-IFA Screen, Serum)
MOG Antibody, IgG is detected. Titer results to follow.

t5: 18-Dec-23 09:39 (DPPX Ab IgG CBA-IFA Screen, Serum)
DPPX Antibody, IgG is detected. Titer results to follow.

t6: 18-Dec-23 09:39 (mGluR1 Ab IgG CBA-IFA Screen, Serum)
mGluR1 Antibody, IgG is detected. Titer results to follow.

Result Footnote

f1: Purkinje Cell/Neuronal Nuclear IgG Scrn

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

Test Information

i1: Neuronal Antibody (Amphiphysin)
INTERPRETIVE INFORMATION: Amphiphysin Antibody, IgG

Amphiphysin antibody is present in about 5 percent of patients with stiff-person syndrome and is found variably in other causes of paraneoplastic neurological syndrome (PNS). Amphiphysin antibody is mainly associated with small-cell lung cancer and breast tumors.

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.

Test Information

i2: Purkinje Cell/Neuronal Nuclear IgG Scrn
INTERPRETIVE INFORMATION: Purkinje Cell/Neuronal Nuclear IgG Scrn

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.

i3: NMO/AQP4 Ab IgG CBA-IFA Screen, Serum
INTERPRETIVE INFORMATION: NMO/AQP4 Ab IgG CBA-IFA Screen, Serum
Neuromyelitis optic (NMO) commonly presents with optic neuritis or longitudinally extensive transverse myelitis. Approximately 75 percent of patients with NMO have antibodies to the aquaporin-4 (AQP4) receptor. While the absence of AQP4 receptor antibodies does not rule out a diagnosis of NMO, presence of this antibody is diagnostic for NMO.

This indirect fluorescent antibody assay utilizes AQP4 receptor transfected cell lines for the detection and semiquantification of AQP4 IgG antibody.

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.

i4: CV2 Ab IgG CBA-IFA Screen, Serum
INTERPRETIVE INFORMATION: CV2 Ab IgG CBA-IFA Screen, Serum

CV2 antibodies aid in discriminating between chronic paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-CV2 is associated with small-cell lung cancer and thymoma. A negative test result does not rule out a diagnosis of autoimmune neurologic disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes CV2 transfected cell lines for the detection and semiquantification of the CV2 IgG antibody.

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.

i5: GABA-BR Ab IgG CBA-IFA Scrn, Ser
INTERPRETIVE INFORMATION: GABA-BR Ab IgG CBA-IFA Scrn, Ser

Gamma-amino butyric acid receptor, type B (GABA-BR) antibody is found in a subset of patients with autoimmune epilepsy and other autoimmune neurologic phenotypes; it

Test Information

i5: GABA-BR Ab IgG CBA-IFA Scrn, Ser

may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response. A negative test result does not rule out a diagnosis of autoimmune neurologic disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes GABA-BR transfected cell lines for the detection and semiquantification of GABA-BR IgG antibody.

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.

i6: MOG Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: MOG Ab IgG CBA-IFA Screen, Serum

Myelin oligodendrocyte glycoprotein (MOG) antibody is found in a subset of patients with neuromyelitis optica spectrum disorders including optic neuritis and transverse myelitis, brainstem encephalitis, and acute disseminated encephalomyelitis. Persistence of antibody positivity may be associated with a relapsing course. A negative test result does not rule out a diagnosis of CNS demyelinating disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes full-length MOG transfected cell lines for the detection and semiquantification of MOG IgG antibody

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.

i7: SOX1 Antibody, IgG by Immunoblot, Serum

INTERPRETIVE INFORMATION: SOX1 Antibody, IgG by Immunoblot, Serum

SOX1 antibody is detected in patients with Lambert-Eaton myasthenic syndrome (LEMS) and in patients with paraneoplastic cerebellar degeneration (PCD), paraneoplastic and nonparaneoplastic neuropathy. SOX1 antibody is associated with small cell lung cancer. A negative test result does not rule out a diagnosis of LEMS or other causes of paraneoplastic neurological syndrome.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

Test Information

i8: DPPX Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: DPPX Ab IgG CBA-IFA Screen, Serum

DPPX antibody is found in a subset of patients with autoimmune encephalitis, and is often associated with prodromal gastrointestinal symptoms and unintentional weight loss. It may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response. A negative test result does not rule out a diagnosis of autoimmune neurologic disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes DPPX transfected cells for the detection and semiquantification of the DPPX IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i9: mGluR1 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: mGluR1 Ab IgG CBA-IFA Screen, Serum

Metabotropic glutamate receptor 1 (mGluR1) antibody is found in a subset of patients with autoimmune cerebellar ataxia or autoimmune encephalitis and may occur with or without associated tumor. A negative test result does not rule out a diagnosis of autoimmune cerebellar ataxia or limbic encephalitis. Interpretation of any antineural antibody test requires clinical correlation.

This indirect fluorescent antibody assay utilizes mGluR1 transfected cell lines for detection and semi-quantification of mGluR1 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i10: Glutamic Acid Decarboxylase Antibody

INTERPRETIVE INFORMATION: Glutamic Acid Decarboxylase Antibody

A value greater than 5.0 IU/mL is considered positive for Glutamic Acid Decarboxylase Antibody (GAD Ab). This assay is intended for the semi-quantitative determination of the GAD Ab in human serum. Results should be interpreted within the context of clinical symptoms.

i11: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

Test Information

i11: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

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.

i12: Neuronal Nuclear Ab (Hu) IgG, IB, Serum

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab IgG, Immunoblot, Ser

This test detects IgG antineuronal antibodies to Hu, Ri, Yo and Tr (DNER) antigens.

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.

The presence of one or more of these antineuronal antibodies supports a clinical diagnosis of PND and should lead to a focused search for the underlying neoplasm.

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.

i13: Neuronal Nuclear Ab (Ri) IgG, IB, Serum

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.

i14: Neuronal Nuclear Ab (Yo) IgG, IB, Serum

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Yo) 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.

i15: Neuronal Nuclear Ab (TR/DNER) IgG, IB

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (TR/DNER) IgG, IB

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

Test Information

i15: Neuronal Nuclear Ab (TR/DNER) IgG, IB
Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i16: NMO/AQP4 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: NMO/AQP4 Ab IgG CBA-IFA Titer, 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.

i17: CV2 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: CV2 Ab IgG CBA-IFA Titer, 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.

i18: DPPX Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: DPPX Ab IgG CBA-IFA Titer, 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.

i19: GABA-BR Ab IgG CBA-IFA Titer, Ser
INTERPRETIVE INFORMATION: GABA-BR Ab IgG CBA-IFA Titer, 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.

i20: mGluR1 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: mGluR1 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i21: MOG Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: MOG Ab IgG CBA-IFA Titer, 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.