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Patient Report

Patient Age/Sex: Unknown

Specimen Collected: 10-Dec-21 08:05

Autoimmune Encephalitis Reflex Panel CSF | **Received: 10-Dec-21 08:05** | **Report/Verified: 10-Dec-21 08:09**

Procedure	Result	Units	Reference Interval
N-methyl-D-Aspartate Receptor Ab,CSF	**1:40** * f1 i1		< 1:1
Neuromyelitis Optica/ AQP4-IgG,CSF	**Detected** * t1 i2		< 1:1
AMPA Receptor Ab IgG Screen,CSF	**Detected** * t2 i3		< 1:1
GABA-B Receptor Ab IgG Screen,CSF	**Detected** * t3 i4		< 1:1
CASPR2 Ab IgG Screen by IFA,CSF	**Detected** * t4 i5		< 1:1
LGI1 Ab IgG Screen by IFA,CSF	**Detected** * t5 i6		< 1:1
DPPX Ab IgG CBA IFA Screen,CSF	**Detected** * t6 i7		< 1:1
Voltage-Gated Potassium Channel Ab, CSF	**50.0** H i8	pmol/L	0.0-1.1
Glutamic Acid Decarboxylase Antibody CSF	**50.0** H i9	IU/mL	0.0-5.0

AMPA Receptor IgG Ab CSF, Titer | **Received: 10-Dec-21 08:05** | **Report/Verified: 10-Dec-21 08:10**

Procedure	Result	Units	Reference Interval
AMPA Receptor Ab IgG Titer,CSF	**1:40** * i10		< 1:1

CASPR2 Ab Titer IgG by IFA, CSF | **Received: 10-Dec-21 08:05** | **Report/Verified: 10-Dec-21 08:10**

Procedure	Result	Units	Reference Interval
CASPR2 Ab IgG Titer by IFA,CSF	**1:20** * i11		< 1:1

DPPX IgG Ab Titer, CSF | **Received: 10-Dec-21 08:05** | **Report/Verified: 10-Dec-21 08:10**

Procedure	Result	Units	Reference Interval
DPPX Ab IgG CBA IFA Titer,CSF	**1:40** * i12		< 1:1

Neuromyelitis Optica/AQP4-IgG Titer, CSF | **Received: 10-Dec-21 08:05** | **Report/Verified: 10-Dec-21 08:10**

Procedure	Result	Units	Reference Interval
Neuromyelitis Optica/ AQP4-IgG Titer,CSF	**1:40** * i13		< 1:1

GABA-B Receptor IgG Ab CSF, Titer | **Received: 10-Dec-21 08:05** | **Report/Verified: 10-Dec-21 08:10**

Procedure	Result	Units	Reference Interval
GABA-B Receptor Ab IgG Titer,CSF	**1:160** * i14		< 1:1

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

LGI1 Ab Titer IgG by IFA, CSF |**Received: 10-Dec-21 08:05** **Report/Verified: 10-Dec-21 08:10**

Procedure	Result	Units	Reference Interval
LGI1 Ab IgG Titer by IFA,CSF	**1:20** * i15		< 1:1

Interpretive Text

t1: 10-Dec-21 08:05 (Neuromyelitis Optica/AQP4-IgG, CSF)
Aquaporin-4 Receptor Antibody, IgG is detected. Titer results to follow.
t2: 10-Dec-21 08:05 (AMPA Receptor Ab IgG Screen, CSF)
AMPAR Antibody, IgG is detected. Titer results to follow.
t3: 10-Dec-21 08:05 (GABA-B Receptor Ab IgG Screen, CSF)
GABA-BR Antibody, IgG is detected. Titer results to follow.
t4: 10-Dec-21 08:05 (CASPR2 Ab IgG Screen by IFA, CSF)
CASPR2 Antibody, IgG is detected. Titer results to follow.
t5: 10-Dec-21 08:05 (LGI1 Ab IgG Screen by IFA, CSF)
LGI1 Antibody, IgG is detected. Titer results to follow.
t6: 10-Dec-21 08:05 (DPPX Ab IgG CBA IFA Screen, CSF)
DPPX Antibody, IgG is detected. Titer results to follow.

Result Footnote

f1: N-methyl-D-Aspartate Receptor Ab, CSF

Antibodies to NMDA were detected; titer was performed at an additional charge.

Test Information

i1: N-methyl-D-Aspartate Receptor Ab, CSF
INTERPRETIVE INFORMATION: N-methyl-D-Aspartate Receptor Ab, CSF

Anti-NMDA receptor IgG antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune limbic encephalitis.

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.

i2: Neuromyelitis Optica/AQP4-IgG, CSF
INTERPRETIVE INFORMATION: Neuromyelitis Optica/AQP4-IgG, CSF Rflx

Diagnosis of neuromyelitis optica (NMO) requires the presence of longitudinally extensive acute myelitis (lesions extending over 3 or more vertebral segments) and optic neuritis. Approximately 75 percent of patients with NMO express 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.

Test Information

i2: Neuromyelitis Optica/AQP4-IgG, CSF

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: AMPA Receptor Ab IgG Screen, CSF

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG Screen, CSF

Alpha-amino-3-hydroxy-5-methyl-4-isoxazoleproprionic acid receptor (AMPAR) antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune encephalitis.

This indirect fluorescent antibody assay utilizes AMPAR transfected cell lines for the detection and semi-quantification of AMPAR 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: GABA-B Receptor Ab IgG Screen, CSF

INTERPRETIVE INFORMATION: GABA Receptor Ab IgG Screen, CSF

Gamma-amino butyric acid receptor, type B (GABA-BR) antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune encephalitis.

This indirect fluorescent antibody assay utilizes GABA-BR transfected cell lines for the detection and semi-quantification 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.

i5: CASPR2 Ab IgG Screen by IFA, CSF

INTERPRETIVE INFORMATION: CASPR2 Ab IgG w/Reflex to Titer, CSF

Contactin-associated protein-2 (CASPR2) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

The presence of CASPR2 IgG antibody is associated with a wide spectrum of clinical manifestations, including acquired neuromyotonia, limbic encephalitis, painful

Test Information

i5: CASPR2 Ab IgG Screen by IFA, CSF

neuropathy, and Morvan syndrome. Tumors such as thymoma, small cell lung cancer, and other rarer tumors may occur. The full-spectrum of clinical disorders and tumors associated with the CASPR2 IgG antibody continues to be defined. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes contactin-associated protein-2 (CASPR2) transfected cell lines for the detection and semi-quantification of the CASPR2 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: LGI1 Ab IgG Screen by IFA, CSF

INTERPRETIVE INFORMATION: LGI1 Ab IgG w/Reflex to Titer, CSF

Leucine-rich, glioma-inactivated 1 protein (LGI1) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

The presence of LGI1 IgG antibody is mainly associated with limbic encephalitis, hyponatremia, and myoclonic movements. LGI1 IgG antibody is rarely associated with tumors but may occur infrequently in Morvan syndrome, neuromyotonia, and idiopathic epilepsy. The full-spectrum of clinical disorders associated with the LGI1 IgG antibody continues to be defined. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes leucine-rich, glioma-inactivated 1 protein (LGI1) transfected cell lines for the detection and semi-quantification of the LGI1 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: DPPX Ab IgG CBA IFA Screen, CSF

INTERPRETIVE INFORMATION: DPPX IgG Ab, CSF, with Rflx

Anti-DPPX IgG antibody is found in a subset of patients with autoimmune encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response; therefore, clinical correlation must be strongly considered. A negative test result does not rule out a diagnosis of autoimmune limbic encephalitis.

Test Information

i7: DPPX Ab IgG CBA IFA Screen, CSF

This indirect fluorescent antibody cell-based assay (CBA) utilizes dipeptidyl aminopeptidase-like protein 6 (DPPX) transfected cells for the detection 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 US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i8: Voltage-Gated Potassium Channel Ab, CSF

INTERPRETIVE INFORMATION: Voltage-Gated Potassium Channel (VGKC) Antibody, CSF

Voltage-Gated Potassium Channel (VGKC) antibodies are associated with neuromuscular weakness as found in neuromyotonia (also known as Issacs syndrome) and Morvan syndrome. VGKC antibodies are also associated with paraneoplastic neurological syndromes and limbic encephalitis; however, VGKC antibody-associated limbic encephalitis may be associated with antibodies to leucine-rich, glioma-inactivated 1 protein (LGI1) or contactin-associated protein-2 (CASPR2) instead of potassium channel antigens. A substantial number of VGKC-antibody positive cases are negative for LGI1 and CASPR2 IgG autoantibodies, not all VGKC complex antigens are known. The clinical significance of this test can only be determined in conjunction with the patient's clinical history and related laboratory testing.

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.

i9: Glutamic Acid Decarboxylase Antibody CSF

INTERPRETIVE INFORMATION: Glutamic Acid Decarboxylase Antibody, CSF

A value greater than 5.0 IU/mL is considered positive for glutamic acid decarboxylase antibody (GAD AB CSF).

This assay is intended for the semi-quantitative determination of the GAD Ab in human CSF. Results should be interpreted within the context of clinical symptoms.

See Compliance Statement B: www.aruplab.com/CS

i10: AMPA Receptor Ab IgG Titer, CSF

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG Titer, CSF

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

i11: CASPR2 Ab IgG Titer by IFA, CSF
INTERPRETIVE INFORMATION: CASPR2 Ab Titer IgG by IFA, CSF

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

i12: DPPX Ab IgG CBA IFA Titer, CSF
INTERPRETIVE INFORMATION: DPPX IgG Ab Titer, CSF

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: Neuromyelitis Optica/AQP4-IgG Titer, CSF
INTERPRETIVE INFORMATION: Neuromyelitis Optica/AQP4-IgG Titer, CSF

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: GABA-B Receptor Ab IgG Titer, CSF
INTERPRETIVE INFORMATION: GABA-B Receptor Ab IgG Titer, CSF

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

i15: LGI1 Ab IgG Titer by IFA, CSF
INTERPRETIVE INFORMATION: LGI1 Ab Titer IgG by IFA, CSF

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