

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

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 5/27/1990  
**Gender:** Male  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Autoimmune Neurologic Disease Reflexive Panel, CSF**

ARUP test code 3002887

N-methyl-D-Aspartate Receptor Ab, CSF

< 1:1 (Ref Interval: < 1:1)

Antibodies to NMDA were not detected, no additional testing to follow.

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.

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

Paraneoplastic Abs (PCCA/ANNA) IgG, CSF

None Detected (Ref Interval: None Detected)

ANNA-1, ANNA-2, PCCA-1 or PCCA-Tr(DNER) antibodies not detected. No further testing will be performed.

INTERPRETIVE INFORMATION: Paraneoplastic Abs (PCCA/ANNA) IgG, CSF

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

AMPA Receptor Ab IgG Screen, CSF

< 1:1 (Ref Interval: < 1:1)

AMPA Antibody, IgG is not detected. No further testing will be performed.

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

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG Screen, CSF

Alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor (AMPA) 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.

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

GABA-B Receptor Ab IgG Screen, CSF

< 1:1 (Ref Interval: < 1:1)

GABA-BR Antibody, IgG is not detected. No further testing will be performed.

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.

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

CASPR2 Ab IgG Screen by IFA, CSF

< 1:1 (Ref Interval: < 1:1)

CASPR2 Antibody, IgG is not detected. No further testing will be performed.

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 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.

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

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

**LGI1 Ab IgG Screen by IFA, CSF**

< 1:1

(Ref Interval: < 1:1)

LGI1 Antibody, IgG is not detected. No further testing will be performed.

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.

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

**CV2.1 Ab IgG Screen, CSF**

< 1:1

(Ref Interval: < 1:1)

CV2.1 Antibody, IgG is not detected. No further testing will be performed.

INTERPRETIVE INFORMATION: CV2.1 IgG Ab with Reflex to Titer, CSF  
CV2.1 antibodies aid in discriminating between chronic paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-CV2.1 is associated with small-cell lung cancer and thymoma.

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

**SOX1 Antibody, IgG by Immunoblot, CSF**

Negative

(Ref Interval: Negative)

INTERPRETIVE INFORMATION: SOX1 Antibody, IgG by Immunoblot, CSF

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.

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

**Voltage-Gated Potassium Channel Ab, CSF**

0.0 pmol/L

(Ref Interval: 0.0-1.1)

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**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 (LGII) or contactin-associated protein-2 (CASPR2) instead of potassium channel antigens. A substantial number of VGKC-antibody positive cases are negative for LGII 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.

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

**Glutamic Acid Decarboxylase Antibody CSF**

<5.0 IU/mL (Ref Interval: 0.0-5.0)

**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

**VERIFIED/REPORTED DATES**

Procedure	Accession	Collected	Received	Verified/Reported
N-methyl-D-Aspartate Receptor Ab, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Paraneoplastic Abs (PCCA/ANNA) IgG, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
AMPA Receptor Ab IgG Screen, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
GABA-B Receptor Ab IgG Screen, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
CASPR2 Ab IgG Screen by IFA, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
LGII Ab IgG Screen by IFA, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
CV2.1 Ab IgG Screen, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
SOX1 Antibody, IgG by Immunoblot, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Voltage-Gated Potassium Channel Ab, CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Glutamic Acid Decarboxylase Antibody CSF	20-277-400592	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

**END OF CHART**

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Unless otherwise indicated, testing performed at: