



| Procedure | Result | Units | Ref Interval | Accession | Collected | Received | Reported/Verified |
|---|-------------------|--------|--------------|---------------|--------------------|--------------------|--------------------|
| N-methyl-D-Aspartate Receptor Ab, Serum | <1:10 f | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:07 |
| CASPR2 Ab IgG Screen by IFA, Serum | Detected | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:58 |
| CASPR2 Ab IgG Titer by IFA, Serum | 1:20 * | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:41:06 |
| LGII Ab IgG Screen by IFA, Serum | Detected | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:58 |
| LGII Ab IgG Titer by IFA, Serum | 1:40 * | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:58 |
| Neuromyelitis Optica/AQP4-IgG, Serum | Detected * | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:41:07 |
| Neuromyelitis Optica/AQP4-IgG Titer Ser | 1:80 * | | [<1:10] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:41:08 |
| Aquaporin-4 Receptor Antibody | 9.0 Hf | U/mL | [<=2.9] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:07 |
| Voltage-Gated Potassium Channel Ab, Ser | 415 Hf | pmol/L | [0-31] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:07 |
| Glutamic Acid Decarboxylase Antibody | 5.5 H | IU/mL | [0.0-5.0] | 19-266-900128 | 23-Sep-19 11:36:00 | 23-Sep-19 11:36:00 | 23-Sep-19 11:40:07 |

23-Sep-19 11:36:00 CASPR2 Ab IgG Screen by IFA, Serum
 CASPR2 Antibody, IgG is detected. Titer results to follow.

23-Sep-19 11:36:00 LGII Ab IgG Screen by IFA, Serum
 LGII Antibody, IgG is detected. Titer results to follow.

23-Sep-19 11:36:00 Neuromyelitis Optica/AQP4-IgG, Serum
 Aquaporin-4 Receptor Antibody, IgG is detected. Titer results to follow.

23-Sep-19 11:36:00 N-methyl-D-Aspartate Receptor Ab, Serum:
 Antibodies to NMDA were not detected, no additional testing to follow.

23-Sep-19 11:36:00 Aquaporin-4 Receptor Antibody:
 AQP4 antibodies detected by ELISA. IFA testing to follow.

23-Sep-19 11:36:00 Voltage-Gated Potassium Channel Ab, Ser:

Leucin-Rich, Glioma Inactivated Protein 1 Antibody, IgG and Contactin-Associated Protein-2 Antibody, IgG with Reflex to Titers added.

23-Sep-19 11:36:00 N-methyl-D-Aspartate Receptor Ab, Serum:
 INTERPRETIVE INFORMATION: N-methyl-D-Aspartate Receptor Ab, Serum
 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

23-Sep-19 11:36:00 CASPR2 Ab IgG Screen by IFA, Serum:
 INTERPRETIVE INFORMATION: CASPR2 Ab IgG w/Reflex to Titer, Serum
 Contactin-associated protein-2 (CASPR2) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab

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

23-Sep-19 11:36:00 CASPR2 Ab IgG Titer by IFA, Serum:
INTERPRETIVE INFORMATION: CASPR2 Ab Titer IgG by IFA,
Serum

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

23-Sep-19 11:36:00 LGI1 Ab IgG Screen by IFA, Serum:
INTERPRETIVE INFORMATION: LGI1 Ab IgG w/Reflex to Titer,
Serum

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

23-Sep-19 11:36:00 LGI1 Ab IgG Titer by IFA, Serum:
INTERPRETIVE INFORMATION: LGI1 Ab Titer IgG by IFA,
Serum

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

23-Sep-19 11:36:00 Neuromyelitis Optica/AQP4-IgG, Serum:
INTERPRETIVE INFORMATION: Neuromyelitis Optica/AQP4-IgG
w/Rfx, Ser

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

23-Sep-19 11:36:00 Neuromyelitis Optica/AQP4-IgG Titer Ser:
INTERPRETIVE INFORMATION: Neuromyelitis Optica/AQP4-IgG
Titer Ser

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

23-Sep-19 11:36:00 Aquaporin-4 Receptor Antibody:
INTERPRETIVE INFORMATION: Aquaporin-4 Receptor Antibody

Negative 2.9 U/mL or less
Positive 3.0 U/mL or greater

Approximately 75 percent of patients with neuromyelitis optica (NMO) express antibodies to the aquaporin-4 (AQP4)receptor. Diagnosis of NMO requires the presence of longitudinally extensive acute myelitis (lesions extending over 3 or more vertebral segments)and optic neuritis. While absense of antibodies to the AQP4 receptor does not rule out the diagnosis of NMO, presence of this antibody is diagnostic for NMO.

23-Sep-19 11:36:00 Voltage-Gated Potassium Channel Ab, Ser:
INTERPRETIVE INFORMATION: Voltage-Gated Potassium Channel
(VGKC) Antibody, Serum

Negative 31 pmol/L or less
Indeterminate... 32 - 87 pmol/L
Positive 88 pmol/L or greater

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.

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

23-Sep-19 11:36:00 Glutamic Acid Decarboxylase Antibody:

* Abnormal, # = Corrected, C = Critical, f = Footnote, H = High, L = Low, t = Interpretive Text, @ = Reference Lab

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.