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**PATIENT REPORT**

Patient Age/Sex: Unknown

**Specimen Collected: 19-Jun-23 08:54**

**Autoimmune Neurologic Disease Pan w/Rflx** | **Received: 19-Jun-23 08:55** | **Report/Verified: 19-Jun-23 08:57**

| Procedure | Result | Units | Reference Interval |
|---|---|---|---|
| Neuronal Antibody (Amphiphysin) | **Positive** * i1 | | [Negative] |
| Purkinje Cell/Neuronal Nuclear IgG Scrn | **ANNA Detected** * f1 i2 | | [None Detected] |
| NMDA Receptor Ab IgG CBA-IFA, Serum | **1:320** * f2 i3 | | [<1:10] |
| CASPR2 Ab IgG CBA-IFA Screen, Serum | **Detected** * t1 i4 | | [<1:10] |
| LGI1 Ab IgG CBA-IFA Screen,Serum | **Detected** * t2 i5 | | [<1:10] |
| NMO/AQP4 Ab IgG CBA-IFA Screen, Serum | **Detected** * t3 i6 | | [<1:10] |
| CV2.1 Ab IgG CBA-IFA Screen, Serum | **Detected** * t4 i7 | | [<1:10] |
| AMPA Receptor Ab IgG CBA-IFA Scrn,Serum | **Detected** * t5 i8 | | [<1:10] |
| GABA-BR Ab IgG CBA-IFA Scrn,Ser | **Detected** * t6 i9 | | [<1:10] |
| MOG Ab IgG CBA-IFA Screen,Serum | **Detected** * t7 i10 | | [<1:10] |
| SOX1 Antibody,IgG by Immunoblot, Serum | **Positive** * i11 | | [Negative] |
| DPPX Ab IgG CBA-IFA Screen,Serum | **Detected** * t8 i12 | | [<1:10] |
| GABA-AR Ab IgG CBA-IFA Screen, Serum | **Detected** * t9 i13 | | [<1:10] |
| ITPR1 Ab IgG CBA-IFA Screen, Serum | **Detected** * t10 i14 | | [<1:10] |
| IgLON5 Ab IgG CBA-IFA Screen, Serum | **Detected** * t11 i15 | | [<1:10] |
| mGluR1 Ab IgG CBA-IFA Screen, Serum | **Detected** * t12 i16 | | [<1:10] |
| P/Q-Type Calcium Channel Antibody | **55.0** H i17 | pmol/L | [0.0-24.5] |
| Voltage-Gated Potassium Channel Ab,Ser | **55** H i18 | pmol/L | [0-31] |
| Ganglionic Acetylcholine Receptor Ab | **15.0** H i19 | pmol/L | [0.0-8.4] |
| Glutamic Acid Decarboxylase Antibody | **15.0** H i20 | IU/mL | [0.0-5.0] |

**Neuronal Nuclear Ab (ANNA) IFA Titer,IgG** | **Received: 19-Jun-23 08:55** | **Report/Verified: 19-Jun-23 08:57**

| Procedure | Result | Units | Reference Interval |
|---|---|---|---|
| Neuronal Nuclear Ab (ANNA) IFA Titer IgG | **1:320** * i21 | | [<1:10] |

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

| **Neuronal Nuclear Ab IgG, Immunoblot, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| Neuronal Nuclear Ab (Hu) IgG,IB, Serum | **High Positive** * i22 | | [Negative] |
| Neuronal Nuclear Ab (Ri) IgG,IB, Serum | **High Positive** * i23 | | [Negative] |
| Neuronal Nuclear Ab (Yo) IgG,IB, Serum | **Positive** * i24 | | [Negative] |
| Neuronal Nuclear Ab (TR/DNER) IgG,IB | **Positive** * i25 | | [Negative] |

| **AMPA Rptr Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| AMPA Receptor Ab IgG CBA-IFA Titer,Ser | **1:80** * i26 | | [<1:10] |

| **NMO/AQP4-Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| NMO/AQP4 Ab IgG CBA-IFA Titer, Serum | **1:320** * i27 | | [<1:10] |

| **CASPR2 Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| CASPR2 Ab IgG CBA-IFA Titer, Serum | **1:160** * i28 | | [<1:10] |

| **CV2.1 Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| CV2.1 Ab IgG CBA-IFA Titer,Serum | **1:160** * i29 | | [<1:10] |

| **DPPX Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| DPPX Ab IgG CBA-IFA Titer,Serum | **1:160** * i30 | | [<1:10] |

| **GABA-A Receptor IgG CBA-IFA Titer, Serum** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| GABA-AR Ab IgG CBA-IFA Titer, Serum | **1:160** * i31 | | [<1:10] |

| **GABA-B Rptr Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:57** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| GABA-BR Ab IgG CBA-IFA Titer,Ser | **1:80** * i32 | | [<1:10] |

| **ITPR1 Ab IgG CBA-IFA Titer, Serum** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:58** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| ITPR1 Ab IgG CBA-IFA Titer,Serum | **1:320** * i33 | | [<1:10] |

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

| **IgLON5 Ab IgG CBA-IFA Titer, Serum** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:58** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| IgLON5 Ab IgG CBA-IFA Titer, Serum | **1:320** * i34 | | [<1:10] |

| **LGI1 Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:58** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| LGI1 Ab IgG CBA-IFA Titer,Serum | **1:160** * i35 | | [<1:10] |

| **MOG Ab IgG Titer by CBA-IFA, Ser** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:58** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| MOG Ab IgG CBA-IFA Titer,Serum | **1:160** * i36 | | [<1:10] |

| **mGluR1 Ab IgG CBA-IFA Titer, Serum** | **Received: 19-Jun-23 08:55** | | **Report/Verified: 19-Jun-23 08:58** |
|---|---|---|---|
| **Procedure** | **Result** | **Units** | **Reference Interval** |
| mGluR1 Ab IgG CBA-IFA Titer, Serum | **1:320** * i37 | | [<1:10] |

## Interpretive Text

t1: 19-Jun-23 08:54 (CASPR2 Ab IgG CBA-IFA Screen, Serum)
CASPR2 Antibody, IgG is detected. Titer results to follow.

t2: 19-Jun-23 08:54 (LGI1 Ab IgG CBA-IFA Screen, Serum)
LGI1 Antibody, IgG is detected. Titer results to follow.

t3: 19-Jun-23 08:54 (NMO/AQP4 Ab IgG CBA-IFA Screen, Serum)
Aquaporin-4 Receptor Antibody, IgG is detected. Titer results to follow.

t4: 19-Jun-23 08:54 (CV2.1 Ab IgG CBA-IFA Screen, Serum)
CV2.1 Antibody, IgG is detected. Titer results to follow. Additional charges apply.

t5: 19-Jun-23 08:54 (AMPA Receptor Ab IgG CBA-IFA Scrn, Serum)
AMPAR Antibody, IgG is detected. Titer results to follow.

t6: 19-Jun-23 08:54 (GABA-BR Ab IgG CBA-IFA Scrn, Ser)
GABA-BR Antibody, IgG is detected. Titer results to follow.

t7: 19-Jun-23 08:54 (MOG Ab IgG CBA-IFA Screen, Serum)
MOG Antibody, IgG is detected. Titer results to follow.

t8: 19-Jun-23 08:54 (DPPX Ab IgG CBA-IFA Screen, Serum)
DPPX Antibody, IgG is detected. Titer results to follow.

t9: 19-Jun-23 08:54 (GABA-AR Ab IgG CBA-IFA Screen, Serum)
GABA-AR Antibody, IgG is detected. Titer results to follow.

t10: 19-Jun-23 08:54 (ITPR1 Ab IgG CBA-IFA Screen, Serum)
ITPR1 Antibody, IgG is detected. Titer results to follow.

t11: 19-Jun-23 08:54 (IgLON5 Ab IgG CBA-IFA Screen, Serum)
IgLON5 Antibody, IgG is detected. Titer results to follow.

t12: 19-Jun-23 08:54 (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.

f2: NMDA Receptor Ab IgG CBA-IFA, Serum

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

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## Result Footnote

f2: NMDA Receptor Ab IgG CBA-IFA, Serum

Clinical trials for anti-NMDA receptor encephalitis are currently underway (clinicaltrials.gov).

## 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.

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: NMDA Receptor Ab IgG CBA-IFA, Serum
INTERPRETIVE INFORMATION: NMDA Receptor Ab IgG CBA-IFA,
Serum

NMDA receptor 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. In addition, positive results have been reported in patients with non-autoimmune phenotypes. A negative test result does not rule out a diagnosis of autoimmune limbic encephalitis. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings. Serum testing should be paired with CSF testing for improved diagnostic sensitivity.

This indirect fluorescent antibody assay utilizes full-length GluN1 transfected cell lines for the detection and semiquantification of NMDA receptor 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: CASPR2 Ab IgG CBA-IFA Screen, Serum
INTERPRETIVE INFORMATION: CASPR2 Ab IgG CBA-IFA Screen,

## Test Information

i4: CASPR2 Ab IgG CBA-IFA Screen, Serum

Serum

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 CASPR2 transfected cell lines for the detection and semiquantification 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.

i5: LGI1 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: LGI1 Ab IgG CBA-IFA Screen, 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 LGI1 transfected cell lines for the detection and semiquantification 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.

i6: 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

## Test Information

i6: NMO/AQP4 Ab IgG CBA-IFA Screen, Serum

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.

i7: CV2.1 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: CV2.1 Ab IgG CBA-IFA Screen, Serum

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. 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 CV2.1 transfected cell lines for the detection and semiquantification of the CV2.1 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: AMPA Receptor Ab IgG CBA-IFA Scrn, Serum

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG CBA-IFA Scrn, Serum

Alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic 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. A negative test result does not rule out a diagnosis of autoimmune encephalitis. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes AMPAR transfected cell lines for the detection and semiquantification 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

## Test Information

i8: AMPA Receptor Ab IgG CBA-IFA Scrn, Serum
Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i9: 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 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.

i10: 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.

i11: 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

## Test Information

i11: SOX1 Antibody, IgG by Immunoblot, Serum

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.

i12: 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.

i13: GABA-AR Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: GABA-AR Ab IgG CBA-IFA Screen, Serum

Gamma-aminobutyric acid receptor, type A (GABA-AR) antibody is found in a subset of patients with autoimmune encephalitis or autoimmune epilepsy and may occur with or without associated tumor. A negative test result does not rule out a diagnosis of autoimmune limbic encephalitis or autoimmune epilepsy. Interpretation of any antineural antibody test requires clinical correlation.

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

i14: ITPR1 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: ITPR1 Ab IgG CBA-IFA Screen, Serum

## Test Information

i14: ITPR1 Ab IgG CBA-IFA Screen, Serum

Inositol 1, 4, 5-trisphosphate receptor type 1 (ITPR1) antibody is found in a subset of patients with autoimmune cerebellar ataxia, encephalitis, neuropathy, or myelopathy and may occur with or without associated tumor. A negative test result does not rule out a diagnosis of autoimmune cerebellar ataxia or related autoimmune neurologic disorders. Interpretation of any antineural antibody test requires clinical correlation.

This indirect fluorescent antibody assay utilizes ITPR1 transfected cell lines for detection and semi-quantification of ITPR1 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.

i15: IgLON5 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: IgLON5 Ab IgG CBA-IFA Screen, Serum

IgLON Family Member 5 (IgLON5) antibody is found in a subset of patients with autoimmune encephalitis or other autoimmune neurologic/neurodegenerative disorders and may occur with or without associated tumor. A negative test result does not rule out a diagnosis of an autoimmune neurologic disorder. Interpretation of any antineural antibody test requires clinical correlation.

This indirect fluorescent antibody assay utilizes IgLON5 transfected cell lines for detection and semi-quantification of IgLON5 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.

i16: 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.

## Test Information

i16: mGluR1 Ab IgG CBA-IFA Screen, 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.

i17: P/Q-Type Calcium Channel Antibody

INTERPRETIVE INFORMATION: P/Q-Type Calcium Channel Antibody

0.0 to 24.5 pmol/L ..... Negative
24.6 to 45.6 pmol/L ..... Indeterminate
45.7 pmol/L or greater..... Positive

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: 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.

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: Ganglionic Acetylcholine Receptor Ab

REFERENCE INTERVAL: Ganglionic Acetylcholine Receptor Ab

Negative . . . . . 0.0-8.4 pmol/L
Indeterminate. . . . . 8.5-11.6 pmol/L
Positive . . . . . 11.7 pmol/L or greater

## Test Information

i19: Ganglionic Acetylcholine Receptor Ab

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: 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.

i21: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

INTERPRETIVE INFORMATION: 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.

i22: 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.

i23: 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

## Test Information

i23: Neuronal Nuclear Ab (Ri) IgG, IB, Serum
Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i24: 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.

i25: 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 Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i26: AMPA Receptor Ab IgG CBA-IFA Titer, Ser
INTERPRETIVE INFORMATION: AMPA Receptor 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.

i27: 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.

i28: CASPR2 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: CASPR2 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.

i29: CV2.1 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: CV2.1 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.

## Test Information

i30: 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.

i31: GABA-AR Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: GABA-AR 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.

i32: 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.

i33: ITPR1 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: ITPR1 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.

i34: IgLON5 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: IgLON5 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.

i35: LGI1 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: LGI1 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.

i36: MOG Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: MOG Ab IgG CBA-IFA Titer, Serum

## Test Information

i36: 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.

i37: 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.