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: 2/6/2025 09:31 MST

Neuronal Nuclear Abs IgG, IB, CSF	**Received: 2/6/2025 09:36 MST**		**Report/Verified: 2/6/2025 09:48 MST**
Procedure	**Result**	**Units**	**Reference Interval**
Neuronal Nuclear Ab (Hu) IgG,IB, CSF	**Positive** * i1		[Negative]
Neuronal Nuclear Ab (Ri) IgG,IB, CSF	**High Positive** * i2		[Negative]
Neuronal Nuclear Ab (Yo) IgG,IB, CSF	**Positive** * i3		[Negative]
Neuronal Nuclear Ab (TR/DNER) IgG,CSF	**Low Positive** * f1 i4		[Negative]

Paraneoplastic Reflexive Panel, CSF	**Received: 2/6/2025 09:36 MST**		**Report/Verified: 2/6/2025 09:48 MST**
Procedure	**Result**	**Units**	**Reference Interval**
Paraneoplastic Abs (PCCA/ANNA) IgG,CSF	**PCCA Detected** * f2 i5		[None Detected]
CV2 Ab IgG CBA-IFA Screen,CSF	**Detected** * t1 i6		[< 1:1]
SOX1 Antibody,IgG by Immunoblot, CSF	**Low Positive** * f3 i7		[Negative]
Amphiphysin Antibody,CSF	**Positive** * i8		[Negative]
Ma2/Ta Antibody,IgG by Immunoblot,CSF	**High Positive** * i9		[Negative]

Purkinje Cell Antibody Titer, CSF	**Received: 2/6/2025 09:36 MST**		**Report/Verified: 2/6/2025 09:48 MST**
Procedure	**Result**	**Units**	**Reference Interval**
Purkinje Cell Antibody Titer IgG,CSF	**1:10** * i10		[< 1:1]

CV2 Ab IgG Titer by CBA-IFA, CSF	**Received: 2/6/2025 09:36 MST**		**Report/Verified: 2/6/2025 09:48 MST**
Procedure	**Result**	**Units**	**Reference Interval**
CV2 Ab IgG CBA-IFA Titer,CSF	**1:20** * i11		[< 1:1]

Interpretive Text

t1: 2/6/2025 09:31 MST (CV2 Ab IgG CBA-IFA Screen, CSF)
CV2 Antibody, IgG is detected. Titer results to follow. Additional charges apply.

Result Footnote

f1: Neuronal Nuclear Ab (TR/DNER) IgG, CSF

Low positive reactivity to Tr(DNER) detected. Strong clinical correlation is recommended.

f2: Paraneoplastic Abs (PCCA/ANNA) IgG, CSF

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

f3: SOX1 Antibody, IgG by Immunoblot, CSF

Low positive reactivity to SOX1 detected. Strong clinical correlation is recommended.

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

Test Information

i1: Neuronal Nuclear Ab (Hu) IgG, IB, CSF

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Hu) IgG, IB, CSF

This test detects IgG antineuronal antibodies to Hu, Ri, and 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.

i2: Neuronal Nuclear Ab (Ri) IgG, IB, CSF

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Ri) IgG, IB, 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: Neuronal Nuclear Ab (Yo) IgG, IB, CSF

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Yo) IgG, IB, 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.

i4: Neuronal Nuclear Ab (TR/DNER) IgG, CSF

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (TR/DNER) 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.

i5: Paraneoplastic Abs (PCCA/ANNA) IgG, CSF

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

Test Information

i5: Paraneoplastic Abs (PCCA/ANNA) 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.

i6: CV2 Ab IgG CBA-IFA Screen, CSF

INTERPRETIVE INFORMATION: CV2 Ab IgG CBA-IFA Screen, CSF

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 U.S. 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, CSF

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.

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.

i8: Amphiphysin Antibody, CSF

INTERPRETIVE INFORMATION: Amphiphysin Antibody IgG, CSF

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

Test Information

i8: Amphiphysin Antibody, CSF
Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i9: Ma2/Ta Antibody, IgG by Immunoblot, CSF
INTERPRETIVE INFORMATION: Ma2/Ta Antibody, IgG by Immunoblot, CSF
IgG antibodies to Ma2/Ta are associated with paraneoplastic neurologic syndromes with phenotypes most often including a combination of limbic encephalitis, diencephalic encephalitis, and brainstem encephalitis. Patients with anti-Ma2/Ta paraneoplastic neurologic syndromes should be thoroughly evaluated for cancer, including testicular cancer and adenocarcinoma, as neurologic symptoms often precede cancer diagnosis. Use of immune checkpoint inhibitors has also been associated with an increased risk of anti-Ma2 paraneoplastic neurologic disease. Consider sending testing in serum as well as CSF to improve diagnostic yield. Results (positive or negative) should be interpreted in the context of the patient's complete clinical picture, as false positives may occur and a negative result does not exclude the diagnosis of paraneoplastic neurologic disease.

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: Purkinje Cell Antibody Titer IgG, CSF
INTERPRETIVE INFORMATION: Purkinje Cell Antibody Titer 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.

i11: CV2 Ab IgG CBA-IFA Titer, CSF
INTERPRETIVE INFORMATION: CV2 Ab IgG CBA-IFA 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.