PATIENT REPORT

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 Age/Sex: Unknown

Specimen Collected: 18-Dec-23 09:31

Neuronal Nuclear Ab (ANNA) IFA Received: 18-Dec-23 09:40 Report/Verified: 18-Dec-23 09:53

Titer, IgG

Procedure Result Units Reference Interval

Neuronal Nuclear Ab (ANNA) IFA 1:80 * i1 [<1:10]

Titer IqG

Neuronal Nuclear Ab IgG, Received: 18-Dec-23 09:40 Report/Verified: 18-Dec-23 09:53

Immunoblot, Ser

Procedure Result Units Reference Interval

Neuronal Nuclear Ab (Hu) IgG, IB, High Positive * i2 [Negative]

Serum

Neuronal Nuclear Ab (Ri) IgG, IB, High Positive * i3 [Negative]

Serum

Neuronal Nuclear Ab (Yo) IqG,IB, Positive * ¹⁴ [Negative]

Serum

Neuronal Nuclear Ab (TR/DNER) Positive * 15 [Negative]

IqG, IB

Paraneoplastic Reflex Panel | Received: 18-Dec-23 09:40 | Report/Verified: 18-Dec-23 09:53

Procedure Result Units Reference Interval

Neuronal Antibody (Amphiphysin) High Positive * 16 [Negative]

Purkinje Cell/Neuronal Nuclear ANNA Detected * f1 i7 [None Detected]

IgG Scrn

CV2 Ab IgG CBA-IFA Screen, Serum Detected * t1 i8 [<1:100]

SOX1 Antibody, IgG by Immunoblot, Positive * 19 [Negative]

Serum

CV2 Ab IgG Titer by CBA-IFA, Ser | Received: 18-Dec-23 09:40 Report/Verified: 18-Dec-23 09:53

Procedure Result Units Reference Interval

CV2 Ab IgG CBA-IFA Titer, Serum 1:800 * i10 [<1:100]

Interpretive Text

t1: 18-Dec-23 09:31 (CV2 Ab IgG CBA-IFA Screen, Serum)

CV2 Antibody, IgG is detected. Titer results to follow. Additional charges apply.

Result Footnote

f1: Purkinje Cell/Neuronal Nuclear IgG Scrn

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

Test Information

il: 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.

i2: Neuronal Nuclear Ab (Hu) IgG, IB, Serum

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab IgG,

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

Unless otherwise indicated, testing performed at:

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ARUP Laboratories 500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-352-900105 **Report Request ID**: 18510325

Printed: 20-Dec-23 12:30

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Jonathan R. Genzen, MD, PhD, Chief Medical Officer

Patient Age/Sex:

Unknown

Test Information

i2: Neuronal Nuclear Ab (Hu) IgG, IB, Serum

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.

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i3: 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 Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i4: 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.

i5: 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.

i6: 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

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Jonathan R. Genzen, MD, PhD, Chief Medical Officer

Patient Age/Sex:

Unknown

Test Information

i6: Neuronal Antibody (Amphiphysin)

syndrome (PNS). Amphiphysin antibody is mainly associated with small-cell lung cancer and breast tumors.

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i7: Purkinje Cell/Neuronal Nuclear IgG Scrn

INTERPRETIVE INFORMATION: Purkinje Cell/Neuronal Nuclear IgG Scrn

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i8: CV2 Ab IgG CBA-IFA Screen, Serum

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

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 US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i9: 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 cancer. A negative test result does not rule out a diagnosis of LEMS or other causes of paraneoplastic neurological syndrome.

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Jonathan R. Genzen, MD, PhD, Chief Medical Officer

Patient Age/Sex:

Unknown

Test Information

i10: CV2 Ab IgG CBA-IFA Titer, Serum

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

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