

Specimen Collected: 16-Jun-23 15:58**Neuronal Nuclear Ab (ANNA) IFA Titer, IgG** | Received: 16-Jun-23 15:58 Report/Verified: 16-Jun-23 16:04

Procedure	Result	Units	Reference Interval
Neuronal Nuclear Ab (ANNA) IFA Titer IgG	1:160 * i1		[<1:10]

Neuronal Nuclear Ab IgG, Immunoblot, Ser | Received: 16-Jun-23 15:58 Report/Verified: 16-Jun-23 16:04

Procedure	Result	Units	Reference Interval
Neuronal Nuclear Ab (Hu) IgG, IB, Serum	High Positive * i2		[Negative]
Neuronal Nuclear Ab (Ri) IgG, IB, Serum	High Positive * i3		[Negative]
Neuronal Nuclear Ab (Yo) IgG, IB, Serum	Positive * i4		[Negative]
Neuronal Nuclear Ab (TR/DNER) IgG, IB	Positive * i5		[Negative]

Paraneoplastic Reflex Panel | Received: 16-Jun-23 15:58 Report/Verified: 16-Jun-23 16:04

Procedure	Result	Units	Reference Interval
Neuronal Antibody (Amphiphysin)	High Positive * i6		[Negative]
Purkinje Cell/Neuronal Nuclear IgG Scrn	ANNA Detected * f1 i7		[None Detected]
CV2.1 Ab IgG CBA-IFA Screen, Serum	Detected * t1 i8		[<1:10]
SOX1 Antibody, IgG by Immunoblot, Serum	Positive * i9		[Negative]

CV2.1 Ab IgG Titer by CBA-IFA, Ser | Received: 16-Jun-23 15:58 Report/Verified: 16-Jun-23 16:05

Procedure	Result	Units	Reference Interval
CV2.1 Ab IgG CBA-IFA Titer, Serum	1:160 * i10		[<1:10]

Interpretive Text

t1: 16-Jun-23 15:58 (CV2.1 Ab IgG CBA-IFA Screen, Serum)
CV2.1 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

i1: 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.

*=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:**ARUP Laboratories**

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-167-900160**Report Request ID:** 17763823**Printed:** 19-Jun-23 12:01

Page 1 of 4

Test Information

i2: 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.

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

*=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:**ARUP Laboratories**

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-167-900160**Report Request ID:** 17763823**Printed:** 19-Jun-23 12:01

Page 2 of 4

Test Information

i6: Neuronal Antibody (Amphiphysin)

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.

i7: 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.

i8: 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.

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.

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

*=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:

ARUP Laboratories

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-167-900160

Report Request ID: 17763823

Printed: 19-Jun-23 12:01

Page 3 of 4

Test Information

i9: SOX1 Antibody, IgG by Immunoblot, Serum
Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i10: 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.

*=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:

ARUP Laboratories

500 Chipeta Way, Salt Lake City, UT 84108

Laboratory Director: Jonathan R. Genzen, MD, PhD

ARUP Accession: 23-167-900160

Report Request ID: 17763823

Printed: 19-Jun-23 12:01