

Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB: 9/12/1960
Gender: Male
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Collection Date: 01/01/2017 12:34

Encephalitis Panel with Reflex to Herpes Simplex Virus Types 1 and 2 Glycoprotein G-Specific Antibodies, IgG, CSF

ARUP test code 2008916

West Nile Virus Antibody IgG CSF

0.07 IV (Ref Interval: <=1.29)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: West Nile Virus Ab IgG by ELISA, CSF

- 1.29 IV or less Negative: No significant level of west Nile virus IgG antibody detected.
- 1.30 - 1.49 IV Equivocal: Questionable presence of west Nile virus IgG antibody detected. Repeat testing in 10-14 days may be helpful.
- 1.50 IV or greater Positive: Presence of IgG antibody to west Nile virus detected, suggestive of current or past infection.

This test is intended to be used as a semi-quantitative means of detecting west Nile virus-specific IgG in CSF samples in which there is a clinical suspicion of west Nile virus infection. This test should not be used solely for quantitative purposes, nor should the results be used without correlation to clinical history or other data. Because other members of the Flaviviridae family, such as St. Louis encephalitis virus, show extensive cross-reactivity with west Nile virus, serologic testing specific for these species should be considered.

The detection of antibodies to west Nile virus in cerebrospinal fluid may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

West Nile Virus Antibody IgM CSF

0.00 IV (Ref Interval: <=0.89)

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 1 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: West Nile Virus Ab IgM by ELISA, CSF

0.89 IV or less Negative - No significant level of West Nile virus IgM antibody detected.
0.90-1.10 IV Equivocal - Questionable presence of West Nile virus IgM antibody detected. Repeat testing in 10-14 days may be helpful.
1.11 IV or greater ... Positive - Presence of IgM antibody to West Nile virus detected, suggestive of current or recent infection.

This test is intended to be used as a semi-quantitative means of detecting West Nile virus-specific IgM in CSF samples in which there is a clinical suspicion of West Nile virus infection. This test should not be used solely for quantitative purposes, nor should the results be used without correlation to clinical history or other data. Because other members of the Flaviviridae family, such as St. Louis encephalitis virus, show extensive cross-reactivity with West Nile virus, serologic testing specific for these species should be considered.

The detection of antibodies to West Nile virus in cerebrospinal fluid may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

Mumps Virus Antibody IgG CSF

<5.0 AU/mL (Ref Interval: <=10.9)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended, as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

INTERPRETIVE INFORMATION: Mumps Ab, IgG, CSF

- 8.9 AU/mL or Less..... Negative - No significant level of detectable IgG mumps virus antibody.
- 9.0-10.9 AU/mL..... Equivocal - Repeat testing in 10-14 days may be helpful.
- 11.0 AU/mL or Greater.. Positive - IgG antibody to mumps virus detected, which may indicate a current or past mumps virus infection.

The detection of antibodies to mumps virus in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

Mumps Virus Antibody IgM CSF

0.19 IV (Ref Interval: <=0.79)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: Mumps Virus Antibody, IgM, CSF

- 0.79 IV or less: Negative - No significant level of detectable IgM antibody to mumps virus.
- 0.80 - 1.20 IV: Equivocal - Borderline levels of IgM antibody to mumps virus. Repeat testing in 10-14 days may be helpful.
- 1.21 IV or greater: Positive - Presence of IgM antibody to mumps virus detected, which may indicate a current or recent infection. However, low levels of IgM antibody may occasionally persist for more than 12 months post-infection or immunization.

The detection of antibodies to mumps in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

VZV Antibody IgG CSF

13.2 IV

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended, as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 3 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

INTERPRETIVE INFORMATION: VZV Ab, IgG, CSF

- 134.9 IV or Less Negative: No significant level of IgG antibody to varicella-zoster virus detected.
- 135.0 - 164.9 IV Equivocal: Repeat testing in 10-14 days may be helpful.
- 165.0 IV or Greater .. Positive: IgG antibody to varicella-zoster virus detected, which may indicate a current or past varicella-zoster infection.

The detection of antibodies to varicella-zoster in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

See Compliance Statement B: www.aruplab.com/CS

VZV Antibody IgM CSF

0.00 ISR (Ref Interval: <=0.90)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: VZV Ab, IgM, CSF

- 0.90 ISR or less Negative - No significant level of IgM antibody to varicella-zoster detected.
- 0.91 - 1.09 ISR Equivocal - Repeat testing in 10-14 days may be helpful.
- 1.10 ISR or greater Positive - Significant level of IgM antibody to varicella-zoster virus detected, which may indicate current or recent infection. However, low levels of antibodies may occasionally persist for more than 12 months post-infection.

While the presence of IgM antibodies suggest current or recent infection, low levels of IgM antibodies may occasionally persist for more than 12 months post-infection.

The detection of antibodies to varicella-zoster in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

Measles, Rubella, Antibody IgG CSF

30.2 AU/mL H (Ref Interval: <=16.4)

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 4 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended, as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: Measles (Rubeola) Antibody, IgG, CSF

13.4 AU/mL or less Negative - No significant level of IgG antibody to measles (rubeola) virus detected.
13.5-16.4 AU/mL Equivocal - Repeat testing in 10-14 days may be helpful.
16.5 AU/mL or greater Positive - IgG antibody to measles (rubeola) detected, which may indicate a current or past exposure/immunization to measles (rubeola).

The detection of antibodies to rubeola in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

Measles, Rubeola, Antibody IgM CSF

0.22 AU (Ref Interval: 0.00-0.79)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: Measles (Rubeola) Antibody, IgM, CSF

0.79 AU or less Negative - No significant level of IgM antibody to measles (rubeola) virus detected.
0.80 - 1.20 AU Equivocal - Repeat testing in 10-14 days may be helpful.
1.21 AU or greater Positive - IgM antibodies to measles (rubeola) virus detected. Suggestive of current or recent infection. However, low levels of IgM antibodies may occasionally persist for more than 12 months post-infection.

The detection of antibodies to rubeola in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

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

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

HSV 1 and/or 2 Antibodies IgM, CSF

0.08 IV (Ref Interval: <=0.89)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

INTERPRETIVE INFORMATION: Herpes Simplex Virus
Type 1 and/or 2 Antibodies,
IgM by ELISA, CSF

- 0.89 IV or Less Negative: No significant level of detectable HSV IgM antibody.
- 0.90 - 1.09 IV Equivocal: Questionable presence of IgM antibodies. Repeat testing in 10-14 days may be helpful.
- 1.10 IV or Greater Positive: IgM antibody to HSV detected, which may indicate a current or recent infection. However, low levels of IgM antibodies may occasionally persist for more than 12 months post-infection.

The detection of antibodies to herpes simplex virus in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

Fourfold or greater rise in CSF antibodies to herpes on specimens at least 4 weeks apart are found in 74-94 % of patients with herpes encephalitis. Specificity of the test based on a single CSF testing is not established. Presently PCR is the primary means of establishing a diagnosis of herpes encephalitis.

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

HSV 1/2 Antibody Screen IgG, CSF

2.54 IV H (Ref Interval: <=0.89)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended, as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 6 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

INTERPRETIVE INFORMATION: Herpes Simplex Virus Type 1 and/or 2
Antibodies, IgG CSF

- 0.89 IV or Less Negative: No significant level of detectable HSV IgG antibody.
- 0.90 - 1.09 IV Equivocal: Questionable presence of IgG antibodies. Repeat testing in 10-14 days may be helpful.
- 1.10 IV or Greater Positive: IgG antibody to HSV detected, which may indicate a current or past HSV infection.

The detection of antibodies to herpes simplex virus in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

Fourfold or greater rise in CSF antibodies to herpes on specimens at least 4 weeks apart are found in 74-94 % of patients with herpes encephalitis. Specificity of the test based on a single CSF testing is not established. Presently PCR is the primary means of establishing a diagnosis of herpes encephalitis.

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

Herpes Simplex Virus Type 1 Glycoprotein G-Specific Antibody, IgG by ELISA, CSF

ARUP test code 0050379

HSV Type 1 Antibody IgG, CSF

0.95 IV H (Ref Interval: <=0.89)

The CSF specimen shows evidence of blood contamination and is, therefore, likely contaminated with serum antibodies. Antibody testing from this specimen is not recommended as the blood may interfere, causing a false-positive result that does not represent intrathecally produced antibodies. False-negative results are also possible. It is highly recommended that serum testing for the same analyte also be performed in order to aid in interpreting the CSF test result.

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 7 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

INTERPRETIVE INFORMATION: Herpes Simplex Virus Type 1
Glycoprotein G-Specific Antibody,
IgG by ELISA, CSF

0.89 IV or Less Negative: No significant level of
detectable IgG antibody to HSV
type 1 glycoprotein G.
0.90 - 1.10 IV Equivocal: Questionable presence
of IgG antibody to HSV type 1.
Repeat testing in 10-14 days may
be helpful.
1.11 IV or Greater ... Positive: IgG antibody to HSV
type 1 glycoprotein G detected,
which may indicate a current
or past infection.

Individuals infected with HSV may not exhibit detectable IgG
antibody to type specific HSV antigens 1 and 2 in the early
stages of infection. Detection of antibody presence in these
cases may only be possible using a nontype-specific screening
test.

The detection of antibodies to herpes simplex virus in CSF may
indicate central nervous system infection. However,
consideration must be given to possible contamination by blood
or transfer of serum antibodies across the blood-brain barrier.

Fourfold or greater rise in CSF antibodies to herpes on
specimens at least 4 weeks apart are found in 74-94 percent of
patients with herpes encephalitis. Specificity of the test based
on a single CSF testing is not established. Presently PCR is the
primary means of establishing a diagnosis of herpes encephalitis.

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

Herpes Simplex Virus Type 2 Glycoprotein G-Specific Antibody, IgG by ELISA, CSF

ARUP test code 0050359

HSV Type 2 Antibody IgG, CSF

0.33 IV

(Ref Interval: <=0.89)

The CSF specimen shows evidence of blood contamination and is,
therefore, likely contaminated with serum antibodies. Antibody
testing from this specimen is not recommended as the blood may
interfere, causing a false-positive result that does not
represent intrathecally produced antibodies. False-negative
results are also possible. It is highly recommended that serum
testing for the same analyte also be performed in order to aid
in interpreting the CSF test result.

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 8 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

INTERPRETIVE INFORMATION: Herpes Simplex Virus Type 2
Glycoprotein G-Specific Antibody,
IgG by ELISA, CSF

0.89 IV or Less Negative: No significant level of
detectable IgG antibody to HSV
type 2 glycoprotein G.

0.90 - 1.10 IV Equivocal: Questionable presence
of IgG antibody to HSV type 2.
Repeat testing in 10-14 days may
be helpful.

1.11 IV or Greater Positive: IgG antibody to HSV type
2 glycoprotein G detected, which
may indicate a current or past
HSV infection.

Individuals infected with HSV may not exhibit detectable IgG
antibody to type specific HSV antigens 1 and 2 in the early
stages of infection. Detection of antibody presence in these
cases may only be possible using a nontype-specific screening
test.

The detection of antibodies to herpes simplex virus in CSF may
indicate central nervous system infection. However,
consideration must be given to possible contamination by blood
or transfer of serum antibodies across the blood-brain barrier.

Fourfold or greater rise in CSF antibodies to herpes on
specimens at least 4 weeks apart are found in 74-94 percent of
patients with herpes encephalitis. Specificity of the test based
on a single CSF testing is not established. Presently PCR is the
primary means of establishing a diagnosis of herpes encephalitis.

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

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 9 of 10 | Printed: 12/7/2020 2:09:09 PM
4848

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
West Nile Virus Antibody IgG CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/15/2020 2:24:00 AM
West Nile Virus Antibody IgM CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/15/2020 2:24:00 AM
Mumps Virus Antibody IgG CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/14/2020 1:14:00 AM
Mumps Virus Antibody IgM CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/15/2020 9:42:00 AM
VZV Antibody IgG CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/14/2020 1:13:00 AM
VZV Antibody IgM CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/14/2020 6:28:00 AM
Measles, Rubeola, Antibody IgG CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/14/2020 1:14:00 AM
Measles, Rubeola, Antibody IgM CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/15/2020 9:45:00 AM
HSV 1 and/or 2 Antibodies IgM, CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/14/2020 1:36:00 PM
HSV 1/2 Antibody Screen IgG, CSF	20-133-400219	5/11/2020 11:19:00 AM	5/13/2020 6:38:32 PM	5/14/2020 3:54:00 AM
HSV Type 1 Antibody IgG, CSF	20-133-400219	5/11/2020 11:19:00 AM	5/14/2020 3:54:32 AM	5/17/2020 2:08:00 PM
HSV Type 2 Antibody IgG, CSF	20-133-400219	5/11/2020 11:19:00 AM	5/14/2020 3:54:33 AM	5/16/2020 12:51:00 AM

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com
500 Chipeta Way, Salt Lake City, UT 84108-1221
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example
ARUP Accession: 20-133-400219
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
Page 10 of 10 | Printed: 12/7/2020 2:09:09 PM
4848