

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

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 10/12/1943  
**Sex:** 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

0.43 IV (Ref Interval: <=1.29)  
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.

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.

West Nile Virus Antibody IgM CSF

0.00 IV (Ref Interval: <=0.89)  
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

**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  
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 22-137-154801  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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1.11 IV or greater ... 10-14 days may be helpful.  
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.

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**Mumps Virus Antibody IgG CSF**

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

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**Mumps Virus Antibody IgM CSF**

0.08 IV (Ref Interval: <=0.79)  
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.

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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.

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VZV Antibody IgG CSF

11.6 IV

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.

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VZV Antibody IgM CSF

0.01 ISR (Ref Interval: <=0.90)

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.

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clinical purposes.

Measles, Rubeola, Antibody IgG CSF

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

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.

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Measles, Rubeola, Antibody IgM CSF

0.20 AU (Ref Interval: 0.00-0.79)

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.

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HSV 1 and/or 2 Antibodies IgM, CSF

0.22 IV (Ref Interval: <=0.89)

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

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0.90 - 1.09 IV ..... antibody.  
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.

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HSV 1/2 Antibody Screen IgG, CSF

**2.36 IV H (Ref Interval: <=0.89)**

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.

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

ARUP test code 0050359

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**HSV Type 2 Antibody IgG, CSF**

0.05 IV

(Ref Interval: <=0.89)

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.

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

ARUP test code 0050379

**HSV Type 1 Antibody IgG, CSF**

0.87 IV

(Ref Interval: <=0.89)

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.

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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.

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VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
West Nile Virus Antibody IgG CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 11:49:00 PM
West Nile Virus Antibody IgM CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 11:50:00 PM
Mumps Virus Antibody IgG CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 5:26:00 AM
Mumps Virus Antibody IgM CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/24/2022 12:06:00 AM
VZV Antibody IgG CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 6:07:00 AM
VZV Antibody IgM CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/24/2022 12:15:00 AM
Measles, Rubeola, Antibody IgG CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 6:10:00 AM
Measles, Rubeola, Antibody IgM CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/24/2022 12:10:00 AM
HSV 1 and/or 2 Antibodies IgM, CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 4:37:00 PM
HSV 1/2 Antibody Screen IgG, CSF	22-137-154801	5/17/2022 2:03:00 PM	5/21/2022 6:31:10 AM	5/22/2022 4:16:00 AM
HSV Type 1 Antibody IgG, CSF	22-137-154801	5/17/2022 2:03:00 PM	5/22/2022 4:15:51 AM	5/25/2022 10:29:00 PM
HSV Type 2 Antibody IgG, CSF	22-137-154801	5/17/2022 2:03:00 PM	5/22/2022 4:15:51 AM	5/23/2022 3:28:00 PM

END OF CHART

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