MAYO CLINIC
Mayo Medical Laboratories

LABORATORY SERVICE REPORT

1-800-533-1710

PATIENT NAME	PATIENT NUMBER	AGE	SEX	ACCESSION #
TESTING, 91331	L3MRNG9165138	50	F	G9165138

ORDERING PHYSICIAN	CLIENT ORDER #	ACCOUNT #
		LIAISONS

COLLECTION DATE TIME	RECEIVED DATE TIME	REPORT PRINTED DATE TIME	SPECIMEN INFORMATION
02/21/11 03:39 P		02/24/11 02:28 P	DATE OF BIRTH: 6/19/1960

Test Client
Attn: Mayo Liaisons
200 First Street SW
Rochester, MN 55905
507-284-8202

TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
Meningoencephalitis Comp Panel (CSF)				**REPORTED: 02/21/11 04:45 P**
California IgG		<1:4		REF
California IgM		<1:4		REF
Interpretation		(NOTE)		REF

ANTIBODY NOT DETECTED

REFERENCE RANGE: IgG <1:4
IgM <1:4

NOTE: Specimens positive for arbovirus antibody are CDC reportable. Please contact your local public health agency.
Diagnosis of infections of the central nervous system can be accomplished by demonstrating the presence of intrathecally-produced specific antibody. However, interpreting results is complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.

Eastern Equine IgG	H	1:4		REF
Eastern Equine IgM	H	1:4		REF
Interpretation		ANTIBODY DETECTED		REF

REFERENCE RANGE: IgG <1:4
IgM <1:4

NOTE: Specimens positive for arbovirus antibody are CDC reportable. Please contact your local public health agency.
Diagnosis of infections of the central nervous system can be accomplished by demonstrating the presence of intrathecally-produced specific antibody. However, interpreting results is

** Perform Site Legend on last page of report*

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TESTING, 91331	Final	02/21/11 03:39 P

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.				
St. Louis IgG	H	1:64		REF
St. Louis IgM		<1:4		REF
Interpretation		ANTIBODY DETECTED		REF
REFERENCE RANGE: IgG <1:4				
IgM <1:4				
NOTE: Specimens positive for arbovirus antibody are CDC reportable. Please contact your local public health agency.				
Diagnosis of infections of the central nervous system can be accomplished by demonstrating the presence of intrathecally-produced specific antibody. However, interpreting results is complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.				
Western Equine IgG		<1:4		REF
Western Equine IgM	H	1:16		REF
Interpretation		ANTIBODY DETECTED		REF
REFERENCE RANGE: IgG <1:4				
IgM <1:4				
NOTE: Specimens positive for arbovirus antibody are CDC reportable. Please contact your local public health agency.				
Diagnosis of infections of the central nervous system can be accomplished by demonstrating the				

** Perform Site Legend on last page of report*

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presence of intrathecally-produced specific antibody. However, interpreting results is complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.				
LCM IgG	H	1:8		REF
LCM IgM	H	1:4		REF
Interpretation		ANTIBODY DETECTED		REF
REFERENCE RANGE: IgG <1:1				
IgM <1:1				
INTERPRETIVE CRITERIA:				
<1:1 Antibody Not Detected				
> or = 1:1 Antibody Detected				
Diagnosis of infections of the central nervous system can be accomplished by demonstrating the presence of intrathecally-produced specific antibody. However, interpreting results is complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. This assay was developed and its performance characteristics determined by Focus Diagnostics. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. Performance characteristics refer to the analytical performance of the test.				
HSV 1 IgM, IFA		<1:1		REF
HSV 2 IgM, IFA		<1:1		REF
REFERENCE RANGE: <1:1				

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INTERPRETIVE CRITERIA:
                  <1:1  Antibody Not Detected
            > or = 1:1  Antibody Detected
The IFA procedure for measuring IgM antibodies to
HSV 1 and HSV 2 detects both type-common and
type-specific HSV antibodies.  Thus, elevated
titers to both HSV 1 and HSV 2 may represent
crossreactive HSV antibodies rather than exposure
to both HSV 1 and HSV 2.
The intrathecal synthesis of HSV antibody is most
accurately measured by performing the Antibody
Index for CNS Infection.
Diagnosis of central nervous system infections can
be accomplished by demonstrating the presence of
intrathecally-produced specific antibody.
Interpreting results may be complicated by low
antibody levels found in CSF, passive transfer of
antibody from blood, and contamination via bloody
taps. The interpretation of CSF results must
consider CSF-serum antibody ratios to the
infectious agent.
This test was developed and its performance
characteristics have been determined by Focus
Diagnostics. Performance characteristics refer to
the analytical performance of the test.
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Adenovirus Ab	H	>=1:8		REF

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REFERENCE RANGE:  <1:1
INTERPRETIVE CRITERIA:
                  <1:1  Antibody Not Detected
            > or = 1:1  Antibody Detected
Diagnosis of infections of the central nervous
system is accomplished by demonstrating the
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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
presence of intrathecally-produced specific antibody. Interpretation of results may be complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent. This test was developed and its performance characteristics have been determined by Focus Diagnostics. Performance characteristics refer to the analytical performance of the test.				
Influenza A Ab	H	1:4		REF
Influenza B Ab		<1:1		REF
REFERENCE RANGE: <1:1				
INTERPRETIVE CRITERIA:				
		<1:1 Antibody Not Detected		
		> or = 1:1 Antibody Detected		
Diagnosis of infections of the central nervous system is accomplished by demonstrating the presence of intrathecally-produced specific antibody. Interpretation of results may be complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent. This test was developed and its performance characteristics have been determined by Focus Diagnostics. Performance characteristics refer to the analytical performance of the test.				
Measles (Rubeola) IgG, IFA		<1:64		REF

** Perform Site Legend on last page of report*

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
Measles (Rubeola) IgM, IFA	**H**	**1:4**		**REF**
Interpretation		**ANTIBODY DETECTED**		**REF**

```
REFERENCE RANGE:  IgG  <1:64
                  IgM  <1:1
Diagnosis of central nervous system infections can
be accomplished by demonstrating the presence of
intrathecally-produced specific antibody.
Interpreting results may be complicated by low
antibody levels found in CSF, passive transfer of
antibody from blood, and contamination via bloody
taps. The interpretation of CSF results must
consider CSF-serum antibody ratios to the
infectious agent.
This assay was developed and its performance
characteristics have been determined by Focus
Diagnostics. It has not been cleared or approved
by the U.S. Food and Drug Administration. The FDA
has determined that such clearance or approval is
not necessary. Performance characteristics refer
to the analytical performance of the test.
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Mumps Ab IgG, IFA		**<1:8**		**REF**
Mumps Ab IgM, IFA		**<1:1**		**REF**
Interpretation		**(NOTE)**		**REF**

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                                   ANTIBODY NOT DETECTED
REFERENCE RANGE:  IgG  <1:8
                  IgM  <1:1
Diagnosis of infections of the central nervous
system can be accomplished by demonstrating the
presence of intrathecally-produced specific
antibody.  Interpretation of results may be
complicated by low antibody levels found in CSF,
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** Perform Site Legend on last page of report*

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *

passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.
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Varicella-Zoster Virus Ab		<1:1		REF

REFERENCE RANGE: <1:1
INTERPRETIVE CRITERIA:
<1:1 Antibody Not Detected
> or = 1:1 Antibody Detected
Diagnosis of infections of the central nervous system is accomplished by demonstrating the presence of intrathecally-produced specific antibody. Interpretation of results may be complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.
This test was developed and its performance characteristics have been determined by Focus Diagnostics. Performance characteristics refer to the analytical performance of the test.

Coxsackie A2 Ab	H	1:4		REF
Coxsackie A4 Ab	H	1:2		REF

** Perform Site Legend on last page of report*

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
Coxsackie A7 Ab	H	1:1		REF
Coxsackie A9 Ab		<1:1		REF
Coxsackie A10 Ab	H	1:8		REF
Coxsackie A16 Ab	H	1:4		REF

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REFERENCE RANGE:  <1:1
INTERPRETIVE CRITERIA:
                  <1:1  Antibody Not Detected
            > or = 1:1  Antibody Detected
Diagnosis of infections of the central nervous
system is accomplished by demonstrating the
presence of intrathecally-produced specific
antibody. Interpretation of results may be
complicated by low antibody levels found in CSF,
passive transfer of antibody from blood, and
contamination via bloody taps. The interpretation
of CSF results must consider CSF-serum antibody
ratios to the infectious agent.
This test was developed and its performance
characteristics have been determined by Focus
Diagnostics. Performance characteristics refer to
the analytical performance of the test.
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Coxsackie B1 Ab	H	>=1:8		REF
Coxsackie B2 Ab	H	1:8		REF
Coxsackie B3 Ab	H	1:4		REF
Coxsackie B4 Ab	H	1:2		REF
Coxsackie B5 Ab	H	1:1		REF
Coxsackie B6 Ab		<1:1		REF

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REFERENCE RANGE:  <1:1
INTERPRETIVE CRITERIA:
                  <1:1  Antibody Not Detected
            > or = 1:1  Antibody Detected
Diagnosis of infections of the central nervous
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system is accomplished by demonstrating the presence of intrathecally-produced specific antibody. Interpretation of results may be complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.
This test was developed and its performance characteristics have been determined by Focus Diagnostics. Performance characteristics refer to the analytical performance of the test.

Echovirus 4 Ab	H	1:8		REF
Echovirus 7 Ab	H	1:4		REF
Echovirus 9 Ab	H	1:2		REF
Echovirus 11 Ab	H	1:1		REF
Echovirus 30 Ab		<1:1		REF

REFERENCE RANGE: <1:1
INTERPRETIVE CRITERIA:
<1:1 Antibody Not Detected
> or = 1:1 Antibody Detected

Diagnosis of infections of the central nervous system is accomplished by demonstrating the presence of intrathecally-produced specific antibody. Interpretation of results may be complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent.
This test was developed and its performance characteristics have been determined by Focus

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
Diagnostics. Performance characteristics refer to the analytical performance of the test.				
Cytomegalovirus IgG, ELISA (CSF)		**<0.80**		**REF**

REFERENCE RANGE: <0.80
INTERPRETIVE CRITERIA:

<0.80	Antibody not detected
0.80 - 0.99	Equivocal
> or = 1.00	Antibody detected

Diagnosis of infections of the central nervous system is accomplished by demonstrating the presence of intrathecally-produced specific antibody. Interpretation of results may be complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent. The intrathecal synthesis of CMV antibody is most accurately measured by performing the Antibody Index for CNS Infection.

Cytomegalovirus IgM, ELISA (CSF)		**<0.90**		**REF**

REFERENCE RANGE: <0.90
INTERPRETIVE CRITERIA:

<0.90	Antibody not detected
0.90 - 1.09	Equivocal
> or = 1.10	Antibody detected

Diagnosis of infections of the central nervous system is accomplished by demonstrating the presence of intrathecally-produced specific antibody. Interpretation of results may be

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
complicated by low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps. The interpretation of CSF results must consider CSF-serum antibody ratios to the infectious agent. The intrathecal synthesis of CMV antibody is most accurately measured by performing the Antibody Index for CNS Infection.				
HSV 1 IgG Index	H	1.10		REF
HSV 2 IgG Index		0.90		REF
REFERENCE RANGE: < or = 1.00 INTERPRETIVE CRITERIA: < or = 1.00 Antibody not detected > 1.00 Antibody detected Detection of HSV type-specific IgG in CSF may indicate central nervous system (CNS) infection by that HSV type. However, interpretation of results may be complicated by a number of factors, including low antibody levels found in CSF, passive transfer of antibody across the blood-brain barrier, and serum contamination of CSF during CSF collection. PCR detection of type-specific HSV DNA in CSF is the preferred method for identifying HSV CNS infections.				
West Nile Virus IgG		<1.30		REF
West Nile Virus IgM		<0.90		REF
Interpretation		(NOTE)		REF
ANTIBODY NOT DETECTED				
REFERENCE RANGE: IgG <1.30 IgM <0.90 INTERPRETIVE CRITERIA IgG: <1.30 Antibody not detected				

** Perform Site Legend on last page of report*

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TEST REQUESTED	HI LO		REF RANGE	PERFORM SITE *
	1.30 - 1.50	Equivocal		
	>1.50	Antibody detected		
IgM:	<0.90	Antibody not detected		
	0.90 - 1.10	Equivocal		
	>1.10	Antibody detected		

In the very early stages of acute West Nile Virus (WNV) infection, IgM may be detectable in CSF before it becomes detectable in serum. Antibodies induced by other flavivirus infections (e.g., Dengue, St. Louis Encephalitis) may show crossreactivity with WNV; thus, antibody detection using this panel is not diagnostically conclusive for WNV infection. Final diagnosis should be based on confirmatory assays, such as the plaque reduction neutralization test.
WNV antibody results for CSF should be interpreted with caution. Complicating factors include low antibody levels found in CSF, passive transfer of antibody from blood, and contamination via bloody taps.
Test Performed by:Focus Diagnostics, Inc.
5785 Corporate Avenue
Cypress, CA 90630-4750

* PERFORMING SITE