

Overview

Useful For

Aiding in the diagnosis of central nervous system infection by mumps virus

Method Name

Immunofluorescence

NY State Available

No

Specimen

Specimen Type

CSF

Specimen Required

Container/Tube: Sterile vial

Specimen Volume: 0.5 mL

Forms

If not ordering electronically, complete, print, and send a [Microbiology Test Request](#) (T244) with the specimen.

Reject Due To

Gross hemolysis OK

Gross lipemia OK

Specimen Minimum Volume

0.1 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
CSF	Refrigerated (preferred)	14 days	
	Frozen	14 days	

Clinical & Interpretive

Clinical Information

There is only one serotype of mumps virus that infects humans. Mumps has been recognized since antiquity by virtue of the parotitis, which is often a striking clinical feature of the disease. Generally, a trivial childhood illness, the varied presentation of mumps reflects the widespread invasion of visceral organs and central nervous system that commonly follows infection with mumps virus.

Reference Values

IgG: <1:5

IgM: <1:10

Reference values apply to all ages.

Interpretation

Detection of organism-specific antibodies in the cerebrospinal fluid (CSF) may suggest central nervous system infection. However, these results are unable to distinguish between intrathecal antibodies and serum antibodies introduced into the CSF at the time of lumbar puncture or from a breakdown in the blood-brain barrier. The results should be interpreted with other laboratory and clinical data prior to a diagnosis of central nervous system infection.

Cautions

No significant cautionary statements

Clinical Reference

1. Wolinsky J, Waxham MN: Mumps virus. In: Fields BN, Knipe DM eds. Fields Virology. Vol 1. 2nd ed. Raven Press; 1990:989-1011
2. Litman N, Baum SG: Mumps virus. In Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020:2087-2092

Performance

Method Description

Mumps virus antibodies are detected by the indirect immunofluorescence procedure. Cerebrospinal fluid from the patient is diluted and placed in wells of substrate slides containing mumps virus-infected cells. A fluorescent antibody conjugate is then allowed to react with the virus-infected cells. (Brown GC, Baublis JV, O'Leary TP: Development and duration of mumps fluorescent antibodies in various immunoglobulin fractions of human serum. J Immunol. 1970;104:86-94; Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of

Infectious Diseases. 9th ed. Elsevier; 2020)

PDF Report

No

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees & Codes**Test Classification**

This test was developed, and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

86735 x 2

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
CMUMP	Mumps Virus Ab, IgG and IgM, CSF	88458-5

Result ID	Reporting Name	LOINC®
1414	Mumps Virus Ab, IgG	21401-5
1415	Mumps Virus Ab, IgM	21402-3