

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  
**Collection Instructions:** Submit aliquot from collection vial 1.

**Forms**  
If not ordering electronically, complete, print, and send [Infectious Disease Serology Test Request](#) (T916) with the specimen.

**Specimen Minimum Volume**  
0.1 mL

Reject Due To

Gross hemolysis	OK
Gross lipemia	OK

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

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

Cerebrospinal fluid (CSF) from a patient is reacted with the antigen substrate. Antibodies, if present, will bind to the antigen forming stable antigen-antibody complexes. If no antibodies are present, the complexes will not be formed, and CSF components will be washed away. Fluorescein labeled antihuman IgG or IgM antibody is added to the reaction site which binds with the complexes formed. This results in a positive reaction of bright apple-green fluorescence when viewed with a properly equipped fluorescence microscope. If no complexes are formed, the fluorescein labeled antibody will be washed away, exhibiting a negative result.(Package insert: Mumps Virus Antigen Substrate Slide. AESKU.BION; 09/2019)

### PDF Report

No

### Day(s) Performed

Monday through Friday

Report Available

Same day/1 to 3 days

Specimen Retention Time

14 days

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Superior Drive

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It 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	Test Result Name	Result LOINC® Value
1414	Mumps Virus Ab, IgG	21401-5
1415	Mumps Virus Ab, IgM	21402-3