Test Definition: HANTI

Hantavirus IgM and IgG, Technical Interpretation, Serum (Non-Orderable)

Overview

Useful For

Only orderable as part of a profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum.

Interpretation of serologic testing for Hantavirus infection

Method Name

Only orderable as part of a profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum.

Technical Interpretation

NY State Available

No

Specimen

Specimen Type

Serum

Specimen Required

Only orderable as part of a profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	21 days	
	Ambient	7 days	
	Frozen	30 days	

Clinical & Interpretive

Clinical Information

Hantaviruses are a group of rodent-borne viruses, with different strains tied to specific regions and host species, causing either Hantavirus pulmonary syndrome (HPS) in the Americas or hemorrhagic fever with renal syndrome (HFRS) in Europe and Asia. Severity varies by strain, from milder infections like Puumala and Seoul viruses to more severe ones like Sin Nombre, Andes, and Hantaan, with Andes virus uniquely capable of limited person-to-person transmission. In the US, the principal syndrome is HPS, most commonly associated with the deer mouse (*Peromyscus maniculatus*), with cases concentrated in the Southwest but reported nationwide. Risk factors include activities that disturb rodent-infested

environments (eg, cleaning cabins, barns, or sheds), occupational exposure (construction, farming), and peridomestic infestations.

After an incubation period of about 1 to 6 weeks, HPS typically begins with a nonspecific prodrome of fever, myalgias (often prominent in the thighs and back), fatigue, and headache, sometimes accompanied by gastrointestinal symptoms. Within several days, patients can progress rapidly to cough and noncardiogenic pulmonary edema leading to hypoxemic respiratory failure and shock. Laboratory findings often include thrombocytopenia, hemoconcentration, leukocytosis with left shift (elevated white blood cell count with increased immature neutrophils), and elevated lactate dehydrogenase. Diagnosis is confirmed by serology (IgM and rising IgG antibodies), polymerase chain reaction analysis for viral RNA, or immunohistochemistry in specialized settings. Early recognition is critical due to the potential for rapid deterioration.

Management is primarily supportive, with early intensive care monitoring, careful fluid management, and prompt initiation of advanced respiratory support including mechanical ventilation; extracorporeal membrane oxygenation (ECMO) may be lifesaving in severe cases. There is no widely approved specific antiviral therapy for HPS. Mortality for HPS remains high (approximately 30%-40%). Prevention focuses on minimizing rodent exposure through environmental control, safe cleanup practices (wet disinfection, avoiding aerosolization), and public health education.

Reference Values

Only orderable as part of a profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum.

IgM: Negative
IgG: Negative
Reference values apply to all ages.

Interpretation

IgM result	IgG result	Interpretation
Negative	Negative	No antibodies to Hantavirus (Sin Nombre or Andes strains) detected. False-negative results may occur in patients tested too soon following infection or in immunocompromised patients.
Negative	Borderline	Possible detection of IgG against Hantavirus (Sin Nombre or Andes strains, unable to differentiate). Consider repeat testing on a new specimen to confirm.
Negative	Positive	IgG against Hantavirus (Sin Nombre or Andes strains, unable to differentiate) detected. Results suggest prior exposure or infection with Hantavirus.
Borderline	Negative	Possible detection of IgM against Hantavirus (Sin Nombre or Andes strains, unable to differentiate). Consider repeat testing on a new specimen to confirm.
Borderline	Borderline	Possible detection of IgM and IgG against Hantavirus (Sin Nombre or Andes strains, unable to differentiate). Consider repeat testing on a new specimen to confirm.

Borderline	Positive	IgG against Hantavirus (Sin Nombre or Andes strains, unable to differentiate) detected. Possible detection of IgM against Hantavirus (Sin Nombre or Andes strains, unable to differentiate). Consider repeat testing on a new specimen to confirm IgM results.
Positive	Negative	IgM against Hantavirus (Sin Nombre or Andes strains, unable to differentiate) detected. Results suggest recent infection with Hantavirus.
Positive	Borderline	IgM against Hantavirus (Sin Nombre or Andes strains, unable to differentiate) detected. Possible detection of IgG against Hantavirus (Sin Nombre or Andes strains, unable to differentiate). Consider repeat testing on a new specimen to confirm IgG results.
Positive	Positive	IgM and IgG against Hantavirus (Sin Nombre or Andes strains, unable to differentiate) detected. Results suggest recent infection with Hantavirus.

Cautions

False-negative results may occur in patients that are either tested too soon following infection or are significantly immunocompromised.

This assay detects IgM and IgG antibodies against antigens from the Sin Nombre and Andes Hantavirus strains; however, it will not differentiate between the two strains. It is unknown if this assay will detect antibodies to other Hantavirus strains.

Results must be interpreted alongside epidemiological exposure history and clinical presentation, and diagnosis should not be made solely on serologic results from this assay.

False-positive results may occur in patients with recent cytomegalovirus infection.

Results from this assay are qualitative only.

Clinical Reference

1. Romeo MA, Tofani S, Lapa D, et al. Orthohantaviruses: An overview of the current status of diagnostics and surveillance. Viruses. 2025;17(5):622
2. Koroknai A, Nagy A, Nagy O, et al. Human Hantavirus infections in Hungary (2018-2025): Epidemiology, molecular detection across clinical sample types, and phylogenetic analysis. Viruses. 2026;18(3):366

Performance

Method Description

Automated interpretation of IgM and IgG antibody results for Hantavirus.

PDF Report
No

Day(s) Performed
Wednesday, Friday

Report Available
Same day/1 to 5 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
Not Applicable

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
HANTI	Hantavirus IgM/IgG, Interpretation	No LOINC Needed

Result ID	Test Result Name	Result LOINC® Value
HANTI	Hantavirus IgM/IgG, Interpretation	69048-7