Lab Dept: Serology

Test Name: HANTAVIRUS ANTIBODIES

General Information

Lab Order Codes:	HAN
Synonyms:	Sin Nombre Virus IgG and IgM; Hantavirus Pulmonary Syndrome
CPT Codes:	86790 x2 – Antibody, virus, not elsewhere specified
Test Includes:	Sera are initially screened for IgG and IgM antibodies recognizing the nucleocapsid protein common to all hantaviruses. If Hantavirus IgM is ≥2.00, Sin Nombre IgM confirmation, ELISA, will be performed.

Logistics

Test Indications:	Two major groups of hantaviruses are recognized based on clinical presentation. The first group includes Sin Nombre Virus (SNV), which causes hantavirus pulmonary syndrome, a severe and possibly fatal form of acute respiratory distress. A second group of hantaviruses (including Seoul, Hantaan, Dobrava, and Puumala viruses) causes hemorrhagic fever with renal syndrome, a condition not typically seen in the United States.
Lab Testing Sections:	Serology - Sendouts
Referred to:	Mayo Medical Laboratories forward to Focus Technologies, Inc. (MML Test: FHVGM) (Focus test: 37547)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 3 days
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	SST (Gold, marble or red)
Draw Volume:	3 mL blood

Processed Volume: 1 mL serum

Collection: Routine venipunture

Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic screw-capped plastic vial and refrigerate specimen. Ship specimen refrigerated. Forward promptly

Patient Preparation: None

Sample Rejection: Specimens other than serum, mislabeled or unlabeled specimens

Interpretive

Reference Range:

<2.00	
Interpretation:	
<2.00	Antibody not detected
≥2.00	Antibody detected
Sin Nombre Confirmation Testing (performed as needed)	
Sin Nombre IgM by ELISA:	Negative

These assays were developed and their performance characteristics have been determined by Focus Diagnostics. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Note: Sera are initially screened for IgG and IgM antibodies recognizing the nucleocapsid protein common to all hantaviruses. All screen IgM positive samples are then tested for SNV-specific IgM; any screen IgM positive samples that are also screen IgG positive are tested for SNV-specific IgG, as well as SNV-specific IgM. Samples that are screen IgG positive but screen IgM negative are not subject to SNV-specific IgG testing, since the lack of IgM rules out acute SNV infection. A positive screening result but a negative SNV-specific antibody result may indicate either reactivity to a hantavirus other than SNV or false positive reactivity. A small number of SNV IgM positive (but screen IgG negative) samples represent false positive reactivity associated with acute cytomegalovirus or Epstein Barr virus infection.

Critical Values: N/A

Limitations: N/A

Methodology:	ELISA for Hantavirus IgG, IgM ELISA for Sin Nombre IgM
References:	Mayo Medical Laboratories Web Page January 2017
	Focus Technologies, Inc. Web Page January 2017
Updates:	4/6/2004: Test moved from the Minnesota Department of Health to Mayo Medical Laboratories forward to Focus Technologies. 4/19/2007: Note change in reference range. 11/19/2007: Note change in reference range. 2/29/2008: Sin Nombre IgM method previously listed as FMI. 3/10/2011: Sin Nombre confirmation testing will be done at an additional charge when indicated. 1/30/2017: Reference range update.