Leinco Technologies, Inc.
excellence in early discovery research™

# Anti-Sin Nombre Virus, Glycoprotein (Hantavirus)

## Purified No Carrier Protein

**Recombinant Monoclonal Antibody**

**Product Information**

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| **Product No.:** | H291 |
| **Clone:** | SNV-57 |
| **Isotype:** | Human IgG1 |

### Product Description

**Specificity:**
The SNV-57 monoclonal antibody is specific for the glycoprotein complex (Gn/Gc) of the Sin Nombre virus (SNV). It is also capable of binding and neutralizing many OWH isolates.

**Antigen Distribution:**
Hantavirus infects and replicates in pulmonary and cardiac endothelium in both humans and deer mice, the natural host.

**Background:**
Hantavirus is an enveloped, negative-sensed, single-stranded RNA virus in the bunyavirus family. “New World” hantaviruses (NWH) are found in the Americas and may cause Hantavirus Pulmonary Syndrome (HPS). “Old World” hantaviruses (OWH) are found mostly in Europe and Asia and may cause Hemorrhagic Fever with Renal Syndrome (HFRS). Each hantavirus serotype has a specific rodent host species and is spread by aerosolized urine, feces, saliva, or rodent bites. Sin Nombre Virus (SNV), an NWH first isolated from rodents in the Southwestern United States, causes severe respiratory infections with a high mortality rate.

*Mechanism & Specificity*
Clone SNV-57 is a highly characterized recombinant monoclonal antibody that exhibits exceptional specificity for the glycoprotein complex (Gn/Gc) of the Sin Nombre virus. Its primary neutralizing mechanism involves binding to the Gn glycoprotein, effectively inhibiting the conformational changes required for viral fusion and host cell entry. Notably, SNV-57 demonstrates broad cross-reactivity; it is capable of binding and neutralizing multiple OWH isolates, including Puumala (PUUV), Dobrava-Belgrade (DOBV), Hantaan (HTNV), and Seoul (SEOV) viruses.

*Applications in IVD & Research*
Because of its broad reactivity and high neutralizing capacity against both NWH and OWH strains, the SNV-57 clone serves as a critical IVD raw material for infectious disease diagnostics. Its high binding affinity makes it an excellent candidate for capturing or detecting Hantavirus antigens in enzyme-linked immunosorbent assays (ELISAs), lateral flow assays (LFAs), and multiplex pan-Hantavirus diagnostic platforms.

**Known Reactivity Species:**
Sin Nombre

**Expression Host:**
HEK-293 Cells

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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**Format:**
Purified No Carrier Protein

**Immunogen:**
Sequenced from PBMCs from a donor who had recovered from a naturally-occurring Sin Nombre Virus infection.

## Formulation
This recombinant monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

## Purity
≥90% monomer by analytical SEC and SDS-Page

## Storage and Stability
This antibody may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C.
**Avoid Repeated Freeze Thaw Cycles.**

## Product Preparation
This product is manufactured, purified, and packaged at our state-of-the-art biotechnology facility in St. Louis, Missouri, USA. Leinco Technologies operates under a rigorous Quality Management System (QMS) certified to ISO 9001:2015 and ISO 13485:2016 standards for medical devices and human diagnostic components.
**Other Applications Reported in Literature:**

**ELISA,**
**N**

## Country of Origin
USA

## References
1. CDC. About Hantavirus. Hantavirus. Published June 4, 2024. Accessed June 17, 2024. https://www.cdc.gov/hantavirus/about/index.html
2. Engdahl TB, Binshtein E, Brocato RL, et al. Antigenic mapping and functional characterization of human New World hantavirus neutralizing antibodies. Elife. 2023;12:e81743.

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