Leinco Technologies, Inc.
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Anti-Sin Nombre Virus, Glycoprotein (Hantavirus)

Purified No Carrier Protein

Recombinant Monoclonal Antibody

Product Information

Product No.:	H292
Clone:	SNV-24
Isotype:	Human IgG1

Product Description

Specificity:
SNV-24 targets domain I of the Gc glycoprotein and demonstrates weak neutralizing activity against authentic hantaviruses of both NWH and OWH isolates. It primarily neutralizes hantaviruses through fusion inhibition.

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. Each hantavirus serotype has a specific rodent host species and is spread by aerosolized urine, feces, saliva, or rodent bites. Sin Nombre Virus (SNV), a NWH first isolated from rodents in the Southwestern United States, infects with a mortality rate of 50%[1].

The SNV-24 clone is a neutralizing antibody that specifically targets domain I of the viral glycoprotein Gc. It has been shown to have weak neutralizing activity against authentic hantaviruses and neutralizes through fusion inhibition.It is also capable of binding and neutralizing many OWH isolates including PUUV, DOBV, HTNV, and SEOV. Understanding the antigenic sites targeted by neutralizing antibodies like SNV-24 can contribute to the development of therapeutics and vaccines for hantavirus-related diseases[2].

Known Reactivity Species:
Sin Nombre

Expression Host:
HEK-293 Cells

Format:
Purified No Carrier Protein

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

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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
Recombinant antibodies are manufactured in an animal free facility using only *in vitro* protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.
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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