

Product Datasheet

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Anti-Andes Virus (Hantavirus) [Clone ANDV-44] — Purified No Carrier Protein

Recombinant Monoclonal Antibody

Product Information

Product No.:	LT551
Clone:	ANDV-44
Isotype:	Human IgG1
Storage:	Sterile 2-8°C

Product Description

Specificity:

Clone ANDV-44 competes for binding to a distinct site on the ANDV surface glycoprotein spike, a tetrameric complex composed of Gn and Gc envelope proteins⁸. Furthermore, antibody ANDV-44 recognizes antigenic site C1 but does not show reactivity to soluble Gc or Gn proteins and may bind to a target site only present in the quaternary spike structure.

Background:

Hantavirus or Andes Virus is an enveloped, negative-sensed, single-stranded RNA virus in the bunyavirus family¹. “New World” hantaviruses (NWH) are found in the Americas and may cause hantavirus pulmonary syndrome (HPS)². “Old World” hantaviruses (OWH) are found mainly in Europe and Asia and may cause hemorrhagic fever with renal syndrome. Each hantavirus serotype has a specific rodent host species, and infection is spread primarily by aerosolized feces, urine, or saliva, with the exception of Andes Virus (ANDV) which is also capable of human-to-human transmission^{3,4}.

ANDV, a NWH found in South America⁵, has a high fatality rate of up to 40%⁶. Clinical research shows that high titers of neutralizing antibodies in patient serum correlate with increased survival⁷, and monoclonal antibodies (mAbs), including ANDV-44, isolated from HPS survivors protect Syrian hamsters from ANDV postinfection⁶⁻⁸.

Known Reactivity Species:

Andes virus, Hantavirus, Virus

Expression Host:

HEK-293 Cells

Format:

Purified No Carrier Protein

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Immunogen:

This human monoclonal antibody clone ANDV-44 was generated as part of a panel using a B cell hybridoma method from an individual previously infected with ANDV⁸.

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: ANDV-44 shows neutralizing activity for ANDV, authentic Sin Nombre virus (SNV), cross-reactivity to SNV Gn and Gc proteins, and potent neutralizing activity to authentic OWH Hantaan virus strain 76–118.

Country of Origin

USA

References

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6. Williamson BN, Prescott J, Garrido JL, et al. Emerg Infect Dis. 27(10):2707–2710. 2021.
7. Bharadwaj M, Nofchissey R, Goade D, et al. J Infect Dis. 182: 43–48. 2000.

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