

Hantaan Virus Nucleocapsid Antibody

Catalog # ASC11758

Product Information

Application	E
Primary Accession	P05133
Other Accession	AFA36178 , 375127553
Reactivity	Virus
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	48142
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Hantaan virus nucleocapsid antibody can detect 10ng Hantaan virus nucleocapsid peptide in ELISA at 1 µg/ml.

Additional Information

Other Names	Nucleoprotein, Nucleocapsid protein, Protein N, N
Target/Specificity	HTNVsSgp1;
Reconstitution & Storage	Hantaan virus nucleocapsid antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	Hantaan Virus Nucleocapsid Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	N
Function	Encapsidates the genome protecting it from nucleases (PubMed: 26923588). The encapsidated genomic RNA is termed the nucleocapsid (NC) and serves as template for transcription and replication (Probable). The nucleocapsid has a left-handed helical structure (PubMed: 30638449). As a trimer, specifically binds and acts as a chaperone to unwind the panhandle structure formed by the viral RNA (vRNA) termini (By similarity). Involved in the transcription and replication initiation of vRNA by mediating primer annealing (By similarity). Plays a role in cap snatching by sequestering capped RNAs in P bodies for use by the viral RdRp during transcription initiation (By similarity). Substitutes for the cellular cap-binding complex (eIF4F) to preferentially facilitate the translation of capped mRNAs (By similarity). Initiates the translation by specifically binding to the cap and 40S ribosomal subunit (By similarity). Prevents the viral glycoprotein N (Gn) from autophagy-dependent breakdown maybe by blocking autophagosome formation (PubMed: 31091447). Inhibits

host EIF2AK2/PKR dimerization to prevent PKR-induced translational shutdown in cells and thus the activation of the antiviral state (By similarity). Also displays sequence-unspecific DNA endonuclease activity (By similarity). Suppresses apoptosis probably through the inhibition of nuclear import of NF-kappa-B (PubMed:[20227103](#)).

Cellular Location

Virion. Host cytoplasm, host perinuclear region. Host Golgi apparatus, host cis-Golgi network. Note=Internal protein of virus particle.

Background

Hantaan virus (HNTV) is the prototype virus of the genus hantavirus of the family Bunyaviridae, an enveloped, negative-sense RNA virus that is the etiological agent of Korean hemorrhagic fever (1). Infection of cultured Vero E6 cells with HNTV induced expression of the heat shock protein HSP70. A substantial fraction of HSP70 was found to be associated with the HNTV nucleocapsid (NP) (2). Vero E6 cells that overexpress HSP70 show significantly reduced levels of NP and an increased resistance to infection by HNTV (2).

References

- Arikawa J, Lapenotiere HF, Iacono-Connors L, et al. Coding properties of the S and M genome segments of Sapporo rat virus: comparison to other causative agents of hemorrhagic fever with renal syndrome. *Virology* 1990; 176:114-25.
- Yu L, Ye L, Zhao R, et al. HSP70 induced by Hantavirus infection interacts with viral nucleocapsid protein and its overexpression suppresses virus infection in Vero E6 cells. *Am. J. Transl. Res.* 2009; 1:367-80.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.