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Puumala Virus Nucleocapsid Antibody

Catalog # ASC11760

Product Information

Application	E
Primary Accession	P27313
Other Accession	ABO93592, 144228123
Reactivity	Virus
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	49452
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Puumala virus nucleocapsid antibody can detect 10ng Puumala virus nucleocapsid peptide in ELISA at 1 □g/ml.

Additional Information

Gene ID	2943083
Other Names	Nucleoprotein, Nucleocapsid protein, Protein N, N
Target/Specificity	PUUVsSgp1;
Reconstitution & Storage	Puumala virus nucleocapsid antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	Puumala 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 (Probable). 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 (By similarity). 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 (By similarity). 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).
Cellular Location	Virion {ECO:0000250|UniProtKB:P05133}. Host cytoplasm, host perinuclear region. Host Golgi apparatus, host cis-Golgi network {ECO:0000250|UniProtKB:P05133} Note=Internal protein of virus particle {ECO:0000250|UniProtKB:P05133}

Background

Puumala virus (PUUV) is a rodent-borne hantavirus of the family Bunyaviridae, an enveloped, negative-sense RNA viruses with a tripartite genome that can cause hantavirus pulmonary syndrome (HPS) and is highly homologous to the protype hantavirus Hantaan virus (1). Like other hantaviruses, the PUUV glycoprotein is synthesized as a precursor that is posttranslationally processed into two glycoproteins G1 (Gn) and G2 (Gc). These glycoproteins interact with the PUUV nucleocapsid (NP) protein through their cytoplasmic tail, and this association has been suggested to be crucial to the binding of the ribonucleoprotein of the PUUV and the assembly of the virus particle (2).

References

Vapalahti O, Kallio-Kokko H, Salonen EM, et al. Cloning and sequencing of Puumala virus Sotkamo strain S and M RNA segments: evidence for strain variation in hantaviruses and expression of the nucleocapsid protein. J. Gen. Virol. 1992; 73:829-38.
Hepojoki J, Strandin T, Wang H, et al. Cytoplasmic tails of hantavirus glycoproteins interact with the nucleocapsid protein. J. Gen. Virol. 2010; 91:2341-50.

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