

Hantaan virus

Hantavirus Pulmonary Syndrome (HPS) is a rare yet potentially life-threatening illness caused by hantaviruses, which are single-stranded, enveloped, negative-sense RNA viruses belonging to the family Hantaviridae. These viruses are transmitted to humans through exposure to the infected urine, droppings, or saliva of certain mice and rat species. HPS is one of the fatal zoonotic syndromes caused by hantaviruses, including species such as Black Creek Canal virus (BCCV), New York orthohantavirus (NYV), Monongahela virus (MGLV), and Sin Nombre orthohantavirus (SNV), which are predominantly native to the United States and Canada.

Hantaviruses have a segmented genome composed of three parts: small (S), medium (M), and large (L), which encode three major proteins. These include nucleocapsid (N), glycoprotein precursor (GPC), and RNA-dependent RNA polymerase L (RdRp). The GPC is further processed into two glycoproteins, Gn and Gc, which are essential for viral attachment and membrane fusion. These structural and non-structural proteins are critical for the virus's life cycle and its interaction with the host immune system.

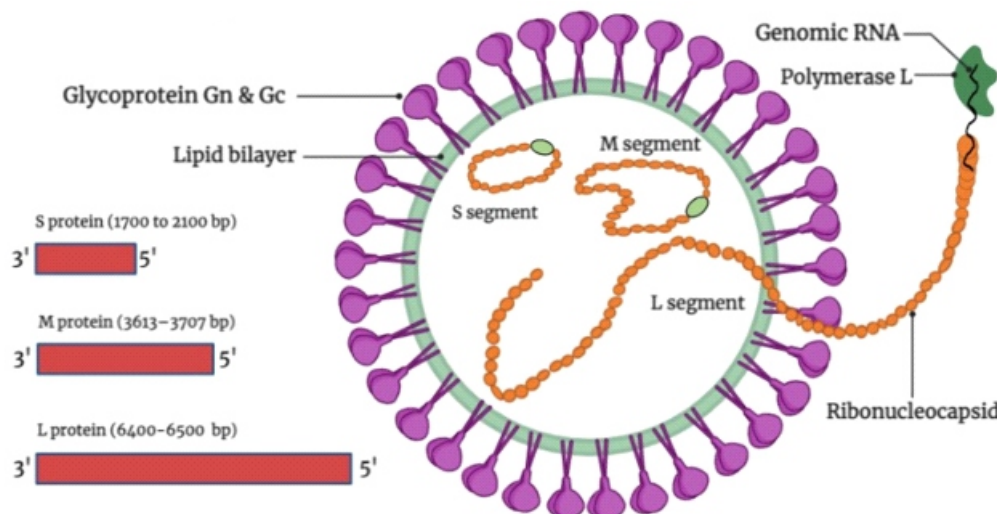


Fig 1. Structure of the Hantavirus

Key proteins play specialized roles in the virus's pathogenicity and are vital research targets. **Gn** facilitates receptor binding and membrane fusion, while Gc assists in attaching the virion to host cell receptors, including integrin ITGAV/ITGB3. **Nucleocapsid(N)**, encoded by the S segment, is vital for viral replication and serves as an early biomarker for infection. **RNA-dependent RNA polymerase L(RdRp)**, the largest protein encoded by the L segment, drives RNA replication and transcription, enabling virus evolution through homologous recombination. Antibodies targeting Gn and Gc demonstrate strong neutralizing activity, making these glycoproteins crucial for vaccine development and therapeutic strategies.

Protein

Catalog No.	Product Name
VK646012	Recombinant BCCV Gc/Glycoprotein C Protein, N-His
VK646022	Recombinant BCCV Gn/Glycoprotein N Protein, N-His
VK484012	Recombinant BCCV N/Nucleoprotein Protein, N-His

Monoclonal Antibody

Catalog No.	Product Name
VK646016	Research Grade Anti-Orthohantavirus puumalaense GP Antibody (ADI-42898)
VK646026	Research Grade Anti-Orthohantavirus puumalaense GP Antibody (ADI-65533)
VK646036	Research Grade Anti-Orthohantavirus puumalaense GP Antibody (ADI-65534)
VK646013	Anti-Hantaan virus/HTNV GP Antibody (3G1)
VK646023	Anti-Hantaan virus/HTNV GP Antibody (A5)
VK646010	InVivoMAb Anti-Orthohantavirus puumalaense GP/Envelopment polyprotein Antibody (4G2)
VK646020	InVivoMAb Anti-Hantaan virus Glycoprotein C/Gc Broad-Neutralizing Antibody (ABV0252)
VK646030	InVivoMAb Anti-Hantaan virus Glycoprotein C/Gc Broad-Neutralizing Antibody (ABV0271)

Polyclonal Antibody

Catalog No.	Product Name
VK646014	Anti-BCCV Gc/Glycoprotein C Polyclonal Antibody
VK646024	Anti-BCCV Gn/Glycoprotein N Polyclonal Antibody
VK484014	Anti-BCCV N/Nucleoprotein Polyclonal Antibody

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