Recombinant Hantaan Virus Nucleoprotein, His-tagged

Cat. No. HAN-235 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Hantaan virus Nucleoprotein (HEK293), His-tag is a recombinant Hantavirus N protein expressed and purified from mammalian cells.
Tag	His
Background	Hantaan orthohantavirus virus is a member of the Hantavirus genus within the Bunyaviridae family of viruses and is a causative agent of a potentially fatal haemorrhagic fever and renal syndrome. Hantavirus genomes have three segments of single stranded negative-sense RNA, named small (S), medium (M) and large (L). The L segment encodes the viral polymerase, the M segment encodes the precursor (GPC) for two viral surface glycoproteins (Gn and Gc), and the S segment encodes the nucleocapsid (N) protein. The hantavirus N plays a pivotal role in viral replication, transcription and assembly (Muyangwa, M). The Hantaan virus nucleocapsid protein has a molecular weight of ~50 kDa and forms a ribonucleoprotein complex which encapsidates genomic RNAs. The Nucleocapsid localises at the perinuclear region of infected or N-expressing cells, forming inclusion bodies and filamentous structures (Yoon, et al., 2015). The nucleoproteins N-terminus contains two coiled-coil motifs that facilitate trimerization to produce putative virus particle assembly intermediates (Alfadhli, et al., 2001). Studies have also demonstrated that in hantavirus-infected cells, N interacts with various cellular host proteins, including Daxx, Ubc and SUMO-1 (Li, et al., 2002; Kaukinen, et al., 2003). Nucleoproteins are relatively conserved among hantaviruses and are highly immunogenic, having been shown to induce efficient protective immunity in animal models (Carvalho, et al. 2002). The immune responses elicited by NPs are thought to

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	be mainly cellular, as N-specific antibodies have not been shown to be neutralizing. However, specific anti-N antibodies have been shown to induce partial protection in passive immunization experiments with monoclonal antibodies, indicating that N-specific antibodies can contribute to inactivation of hantaviruses through other mechanisms (Carvalho, et al. 2002).
Formulation	DPBS pH 7.4
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease

GENE INFORMATION

Synonyms	Hantaan Virus Nucleoprotein

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