

Recombinant Human parainfluenzavirus 3 haemagglutinin-neuraminidase (HN) Protein, His tagged

Cat. No. HN-03H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Parainfluenza Virus Type 3 haemagglutinin-neuraminidase (HN) protein, strain Wash/47885/57, NCBI Accession number AAA46846.1, manufactured in HEK293 cells.
Species	Human Parainfluenza Virus Type 3
Source	HEK293
Description	Human parainfluenza viruses (HPIV) belong to a diverse group of enveloped single-stranded RNA viruses within the Paramyxoviridae family, a large and expanding group of viruses that includes metapneumovirus and the mumps, measles and respiratory syncytial viruses. Paramyxoviruses are enveloped animal viruses with non-segmented negative-strand RNA genomes (complementary to mRNA), which are identified almost exclusively in nucleocapsid structures. The HPIV genome comprises approximately 15,000 nucleotides and encodes six common structural proteins: 'large' (L) nucleocapsid protein, P and N, which are closely associated with viral RNA, haemagglutinin-neuraminidase (HN), and fusion (F) and membrane (M) proteins. HPIVs bind and replicate in the ciliated epithelial cells of the upper and lower respiratory tract and the extent of the infection correlates with the location involved. Human parainfluenza virus type 3 enters cells by directly fusing with the cell membrane. During entry, the viral surface glycoproteins HN, a receptor-binding protein, and F cooperate to mediate fusion upon receptor binding. The HN and fusion glycoproteins are the major targets for neutralizing antibodies. F is a class I viral

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fusion protein and has at least 3 conformational states: pre-fusion native state, pre-hairpin intermediate state, and post-fusion hairpin state. During viral and plasma cell membrane fusion, the heptad repeat (HR) regions assume a trimer-of-hairpins structure, positioning the fusion peptide in close proximity to the C-terminal region of the ectodomain. The formation of this structure appears to drive fusion of viral and plasma cell membranes and directs fusion of viral and cellular membranes leading to delivery of the nucleocapsid into the cytoplasm.

Form Liquid, 20mM sodium phosphate pH7.0, 210mM NaCl

Purity >90%

Storage Short Term Storage: -80 centigrade Long Term Storage: -80 centigrade Freezing: Can be frozen, but avoid multiple freeze-thaw cycles.

Concentration 0.61 mg/mL

GENE INFORMATION

Official Symbol HN

Synonyms HN; haemagglutinin-neuraminidase

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