

# Recombinant Nipah Virus Nucleoprotein, His-tagged

**Cat. No.** NIP-510    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Nipah virus Nucleoprotein (N) is a recombinant protein expressed and purified from mammalian cells.

### Tag

His

### Background

Nipah virus (NiV) is an emerging and highly pathogenic zoonotic paramyxovirus (genus Henipavirus) that is transmitted by its natural reservoir, Pteropid bats. NiV initially emerged in 1998 in Malaysia, and is now distributed in Asia, Africa, and the South Pacific Ocean. It causes deadly respiratory and encephalic diseases in humans. Because its mortality rate can exceed 70% in humans, its potential for human-to-human transmission and the absence of vaccine or specific antiviral treatment, it is classified as a biosafety level 4 (BSL-4) pathogen (Yabukarski et al., 2014).

The NiV genome consists of a negative-sense, single-stranded RNA of approximately 18.2 kb, encoding six structural proteins, nucleoprotein (N), phosphoprotein (P), matrix protein (M), fusion protein (F), attachment glycoprotein (G), and the large protein or RNA polymerase protein (L). In addition, the P gene encodes three non-structural proteins by RNA editing (V and W proteins) or an alternative open reading frame (C protein) (Wang et al. 2001).

NiV genomic RNA is condensed by a homopolymer of nucleoprotein (N), forming long helical nucleocapsids (NCs). The nucleoprotein encapsidates the genome protecting it from nucleases. Ribonucleoprotein complexes (RNP) are then used as a template for RNA synthesis by the viral RNA-dependent RNA polymerase (Yabukarski et al., 2014). Within the RNP, N is responsible for viral genome wrapping and facilitates viral

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replication and transcription (Lee et al., 2012).

In February 2018, Nipah Virus (NiV) infection was listed as a priority disease posing a public health risk by the World Health Organization (Sun et al., 2018).

**Formulation**

50mM HEPES pH8.0, 150mM NaCl, 4M urea, sterile filtered.

**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**

Nipah Virus Nucleoprotein

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