

# Recombinant Influenza B virus Nucleoprotein

**Cat. No.** NP-12V    **Lot. No.** (See product label)

## SPECIFICATION

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| <b>Product Overview</b> | Recombinant Influenza B virus Nucleoprotein (NP), partial, 1-245 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Influenza B virus (strain B/Ann Arbor/1/1966 [wild-type])                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | E.Coli/Yeast/Baculovirus/Mammalian Cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 1-245 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | <p>Encapsidates the negative strand viral RNA, protecting it from nucleases. The encapsidated genomic RNA is termed the ribonucleoprotein (RNP) and serves as template for transcription and replication. The RNP needs to be localized in the host nucleus to start an infectious cycle, but is too large to diffuse through the nuclear pore complex. NP comprises at least 2 nuclear localization signals that are responsible for the active RNP import into the nucleus through cellular importin alpha/beta pathway. Later in the infection, nuclear export of RNPs are mediated through viral proteins NEP interacting with M1 which binds nucleoproteins. It is possible that nucleoprotein binds directly host exportin-1/XPO1 and plays an active role in RNPs nuclear export. M1 interaction with RNP seems to hide nucleoprotein's nuclear localization signals. Soon after a virion infects a new cell, M1 dissociates from the RNP under acidification of the virion driven by M2 protein. Dissociation of M1 from RNP un masks nucleoprotein's nuclear localization signals, targeting the RNP to the nucleus.</p> |
| <b>Tag</b>              | This protein contains an N-terminal tag and may also contain a C-terminal tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Form</b>             | Lyophilized or liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| <b>Molecular Mass</b>   | 61,580 Da                                                                                                                                                                                                                                                                                     |
| <b>AA Sequence</b>      | <p>MSNMDIDGINTGTIDKTPEEITSGTSGATRPIIKPATLAPPSNKRTRNPSPERATTSSE</p> <p>AIVGRRTQKKQTPTEIKKSVYNMVVKLGEFYNQMMVKAGLNDDMERNLIQNAHAVE</p> <p>RILLAATDDKKTEYQKKKNARDVKEGKEEIDHNKTGGTFYKMVRDDKTIYFSPIRITFL</p> <p>KEEVKTMKYKTTMGSDGFSGLNHIMIGHSQMNDVCFQRSKALKRVGLDPSLISTFAG</p> <p>STLPRRSGATGVAIK</p> |
| <b>Endotoxin</b>        | Low endotoxin available upon request.                                                                                                                                                                                                                                                         |
| <b>Purity</b>           | Greater or equal to 85% purity as determined by SDS-PAGE.                                                                                                                                                                                                                                     |
| <b>Storage</b>          | Store at -20 centigrade. For long-term storage, store at -20 centigrade or -80 centigrade. Store working aliquots at 4 centigrade for up to one week. Repeated freezing and thawing is not recommended.                                                                                       |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                               |
| <b>Official Symbol</b>  | NP                                                                                                                                                                                                                                                                                            |
| <b>Synonyms</b>         | Nucleoprotein; NP; Protein N                                                                                                                                                                                                                                                                  |
| <b>UniProt ID</b>       | <a href="#">P13885</a>                                                                                                                                                                                                                                                                        |