# Recombinant H1N1 (A/California/04/2009) NA protein, His-tagged, Active

**Cat. No.** NA-309I **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant H1N1 (A/California/04/2009) NA(His 36-Lys 469) fused with His tag at the N-terminus was expressed in Insect cells. |
| **Species** | H1N1 |
| **Source** | Insect Cells |
| **ProteinLength** | His 36-Lys 469 |
| **Description** | Neuraminidases are enzymes that cleave sialic acid groups from glycoproteins. Influenza neuraminidase is a type of neuraminidase found on the surface of influenza viruses that enables the virus to be released from the host cell.Influenza neuraminidase is composed of four identical subunits arranged in a square. It is normally attached to the virus surface through a long protein stalk. The active sites are in a deep depression on the upper surface. They bind to polysaccharide chains and clip off the sugars at the end. The surface of neuraminidase is decorated with several polysaccharide chains that are similar to the polysaccharide chains that decorate our own cell surface proteins.Neuraminidase (NA) and hemagglutinin (HA) are major membrane glycoproteins found on the surface of influenza virus. Hemagglutinin binds to the sialic acid-containing receptors on the surface of host cells during initial infection and at the end of an infectious cycle. Neuraminidase, on the other hand, cleaves the HA-sialic acid bondage from the newly formed virions and the host cell receptors during budding. Neuraminidase thus is described as a receptor- |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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| | destroying enzyme which facilitates virus release and efficient spread of the progeny virus from cell to cell. |
| **Predicted N Terminal** | His |
| **Form** | Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. |
| **Molecular Mass** | The recombinant influenza H1N1 virus neuraminidase (A/California/04/2009 (H1N1)) comprises 450 amino acids with the predicted molecular mass of 50 kDa. The apparent molecular mass of the recombinant protein is approximately 55 kDa in SDS-PAGE under reducing conditions. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method |
| **Purity** | > 88 % as determined by SDS-PAGE |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70 centigrade |
| **Storage** | Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |

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