

H1N1 (A/California/04/2009), Hemagglutinin

Cat. No.: Z03181-10

Size: 10.0 ug

Synonyms: HA

Description:

Influenza hemagglutinin (HA) is a glycoprotein found on the surface of the influenza virus. It is responsible for binding the virus to cells with sialic acid on their membranes, such as cells in the upper respiratory tract or erythrocytes. It is also responsible for the fusion of the viral envelope with the endosome membrane after the pH has been reduced. The name "hemagglutinin" comes from the protein's ability to cause red blood cells (erythrocytes) to clump together *in vitro*. HA has two functions. First, it allows the recognition of target vertebrate cells, accomplished through binding to these cells' sialic acid-containing receptors. Second, once bound it facilitates the entry of the viral genome into the target cells by causing the fusion of the host endosomal membrane with the viral membrane. H1N1 is a subtype of influenza virus A and the most common cause of influenza in humans.

Recombinant Influenza A H1N1 (A/California/04/2009(H1N1)) Hemagglutinin with his-tag produced in Sf9 Cell is a single, glycosylated polypeptide chain containing 520 amino acids. A fully biologically active molecule, HA-H1N1 has a molecular mass of 66 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MKAILVLLY TFATANADTL CIGYHANNST DTVDTVLEKN
00041 VTVTHSVNLL EDKHNGKLCCK LRGVAPLHLG KCNIAGWILG
00081 NPECESLSTA SSWSYIVETP SSDNGTCYPG DFIDYEELRE
00121 QLSSVSSFER FEIFPKTSSW PNHDSNKGVT AACPHAGAKS
00161 FYKNLIWLVK KGNSYPKLSK SYINDKKGKEV LVLWGIHHP
00201 TSADQQLSYQ NADTYVFGS SRYSKFKPE IAIRPKVRDQ
00241 EGRMNYWTL VEPGDKITFE ATGNLVVPRY AFAMERNAGS
00281 GIIISDTPVH DCNTTCQTPK GAINSLPFQ NIHPITIGKC
00321 PKYVKSTKLR LATGLRNIPS IQSRGLFGAI AGFIEGGWTG
00361 MVDGWYGYHH QNEQSGGYAA DLKSTQNAID EITNKVNSVI
00401 EKMNTQFTAV GKEFNHLEKR IENLNKKVDD GFLDIWYNA
00441 ELLVLENER TLDYHDSNVK NLYEKVRSQL KNAKEIGNG
00481 CFEFYHKCDN TCMESVKNGT YDYPKYSEEA KLNREEIDGV
00521 KLESTRIYQH HHHHHHH
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Source: Sf9 insect cells

Species: Hemagglutinin

Biological Activity: This recombinant protein has not been tested.

Molecular Weight: 66 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized in 20 mM PB buffer (pH 7.4), 300 mM NaCl, 5% mannitol, 5% trehalose.

Reconstitution: Dissolve the protein in sterile double distilled water to a concentration of 0.2 mg/ml or lower.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 1 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant Influenza A H1N1 (A/California/04/2009(H1N1)) Hemagglutinin remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, HA-H1N1 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.