

H9 Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, A/turkey/Wisconsin/1/1966 (H9N2), Recombinant from Baculovirus

Catalog No. NR-43782

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Contributor and Manufacturer:

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Product Description:

A recombinant form of the H9 hemagglutinin (HA) protein from influenza A virus, A/turkey/Wisconsin/1/1966 (H9N2) containing a C-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and was purified by nickel affinity chromatography. The predicted protein sequence is shown in Table 1. The HA protein includes a C-terminal peptide containing a thrombin cleavage site, trimerizing (foldon) domain and eight histidine residues.^{1,2} The full-length HA precursor protein is 560 residues (GenPept: AGB50938).

Material Provided:

Each vial contains approximately 100 µg to 200 µg of purified recombinant HA protein in PBS (pH 7.4) with 1mM 4-(2-aminoethyl)-benzenesulfonyl fluoride hydrochloride (AEBSF), and 0.5M NaCl. The protein content in µg and the concentration, expressed as µg per mL, are shown on the Certificate of Analysis.

Packaging/Storage:

Purified recombinant HA protein was packaged aseptically, in screw-capped plastic cryovials. This product is provided on ice bricks and should be stored at 4°C immediately upon arrival.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: H9 Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, A/turkey/Wisconsin/1/1966 (H9N2), Recombinant from Baculovirus, NR-43782."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Stevens, J., et al. "Structure of the Uncleaved Human H1 Hemagglutinin from the Extinct 1918 Influenza Virus." *Science* 303 (2004): 1866-1870. PubMed: [14764887](https://pubmed.ncbi.nlm.nih.gov/14764887/).
2. Stevens, J., et al. "Structure and Receptor Specificity of the Hemagglutinin from an H5N1 Influenza Virus." *Science* 312 (2006): 404-410. PubMed: [16543414](https://pubmed.ncbi.nlm.nih.gov/16543414/).

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Table 1 – Predicted Protein Sequence

1	ADPDKICIGY	QSTNSTETVD	TLTESNVPVT	HTKELLHTEH	NGMLCATDLG
51	HPLILDCTI	EGLIYGNPSC	DILLGGKEWS	YIVERSSAVN	GMCYPGNVEN
101	LEELRSLFSS	AKSYKRIQIF	PDKTWNVTYS	GTSRACNSF	YRSMRWLTHK
151	SNSYPFQNAH	YTNNERENIL	FMWGIHHPPT	DTEQTDLYKK	ADTTTSVTTE
201	DINRTFKPVI	GPRPLVNGQ	GRIDYYWSVL	KPGQTLRIGS	NGNLIAPWYG
251	HVLTGESHGR	ILKTDLNNGN	CVVQCQTEKG	GLNTTLPFHN	ISKYAFGNCP
301	KYVGVKSLKL	AVGLRNPVAV	SSRGLFGAIA	GFIEGGWPGL	VAGWYGFQHS
351	NDQVGMAAD	KGSTQKAIDK	ITSKVNNIID	KMNKQYEVID	HEFNELEARL
401	NMINNKIDDQ	IQDIWAYNAE	LLVLLENQKT	LDEHDANVNN	LYNKVKRALG
451	SNAVEDGNGC	FELYHKCDDQ	CMETIRNGTY	DRQKYQEESS	LERQKIEGVK
501	LESEGI GRLV	PRGS PGSGYI	PEAPRDGOAY	VRKDGWVLL	STFLGHHHHH
551	HHH				

Plasmid-derived amino acids – [Residues 1 to 3, 506 to 508, 515, 545](#)

HA protein – **Residues 4 to 505***

Thrombin cleavage sequence – Residues 509 to 514

Trimerizing domain – [Residues 516 to 544](#)

His Tag – Residues 546 to 553

*This represents amino acid residues 4-505 of the A/turkey/Wisconsin/1/1966 (H9N2) HA protein (GenPept: AGB50938).