

Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, B/Hong Kong/330/2001 (Victoria Lineage), Recombinant from Baculovirus

Catalog No. NR-43780

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Contributor and Manufacturer:

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Product Description:

A recombinant form of the hemagglutinin (HA) protein from influenza B virus, B/Hong Kong/330/2001 (Victoria Lineage) 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 native full-length HA precursor protein is 585 residues (GenPept: ABL77178).

Material Provided:

Each vial contains 50 µg to 150 µg of purified recombinant HA protein in PBS (pH 7.4). The concentration, expressed as µg per mL, is 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 -20°C immediately upon arrival.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, B/Hong Kong/330/2001 (Victoria Lineage), Recombinant from Baculovirus, NR-43780."

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 H3 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	ADPGYLLEDR	ICTGITSSNS	PHVVKTATQG	EVNVTGVIPL	TTTPTKSHFA
51	NLKGTKTRGK	LCPKCLNCTD	LDVALGRPKC	TGNIPSAKVS	ILHEVRPVTS
101	GCFPIMHDRT	KIRQLPNLLR	GYERIRLSNH	NVINAEKAPG	GPYKIGTSGS
151	CPNVTNGNGF	FATMAWAVPK	NENNKTATNS	LTIEVPYICT	EGEDQITVWG
201	FHSDSETQMA	KLYGDSKPQK	FTSSANGVTT	HYVSQIGGFP	NQTEDGGLPQ
251	SGRIVVDYMV	QKSGKTGTIT	YQRGILLPQK	VWCASGRSKV	IKGSLPLIGE
301	ADCLHEKYGG	LNKSKPYTGT	EHAKAIGNCP	IWKVTKPLKA	NGTKYRPPAK
351	LLKERGFFGA	IAGFLEGGWE	GMIAGWHGYT	SHGAHGVAVA	ADLKSTQEAI
401	NKITKNLNSL	SELEVKNLQR	LSGAMDELHN	EILELDEKVD	DLRADTISSQ
451	IELAVLLSNE	GIINSEDEHL	LALERKLLKM	LGPSAVEIGN	GCFETKHKCN
501	QTCLDRIAAG	TFNAGEFSLP	TFDSL NITAA	SLNDDGRCRS	SGRLVPRGSP
551	GSGYIPEAPR	DGOAYVRKDG	EVLVLLSTFLG	HHHHHHHH	

Plasmid-derived amino acids – [Residues 1 to 4, 537 to 543, 550, 580](#)

HA protein – [Residues 8 to 536*](#)

Thrombin cleavage sequence – [Residues 544 to 549](#)

Trimerizing domain – [Residues 551 to 569](#)

His Tag – [Residues 581 to 588](#)

*This represents amino acid residues 16-543 of the B/Hong Kong/330/2001 (Victoria Lineage) HA protein (GenPept: ABL77178).