

**Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, B/Florida/4/2006 (Yamagata Lineage), Recombinant from Baculovirus**

**Catalog No. NR-15748**

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**Contributor and Manufacturer:**

BEI Resources

**Product Description:**

The hemagglutinin (HA) protein from influenza B virus B/Florida/4/2006 (Yamagata Lineage)<sup>1</sup> containing a C-terminal histidine tag was produced in High Five™ insect cells using a baculovirus expression vector system and was purified by metal 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.<sup>2,3</sup> The full-length HA precursor protein is 584 residues (GenPept: ACA33493).

**Material Provided:**

Each vial contains approximately 20 to 60 µg of purified recombinant HA protein in PBS (pH 7.4). The protein content in µg and the concentration, expressed as µg/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 refrigerated bricks and should be stored at 2°C to 8°C immediately upon arrival. Do not freeze.

**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/Florida/4/2006 (Yamagata Lineage), Recombinant from Baculovirus, NR-15748.”

**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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Fiore, A. E., et al. “Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2008.” MMWR Recomm. Rep. 57 (2008): 1-60. PubMed: 18685555.
2. Stevens, J., et al. “Structure of the Uncleaved Human H1 Hemagglutinin from the Extinct 1918 Influenza Virus.” Science 303 (2004): 1866-1870. PubMed: 14764887.
3. Stevens, J., et al. “Structure and Receptor Specificity of the Hemagglutinin from an H5N1 Influenza Virus.” Science 312 (2006): 404-410. PubMed: 16543414.

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Table 1 – Predicted Protein Sequence

1	<a href="#">ADPGYLLEDR</a>	ICTGITSSNS	PHVVKTATQG	EVNVTGVIPL	TTTPTKSYFA
51	NLKGTRTRGK	LCPDCLNCTD	LDVALGRPMC	VGTTPSAKAS	ILHEVKPVTS
101	GCFPIMHDRT	KIRQLPNLLR	GYENIRLSTQ	NVIDAEKAPG	GPYRLGTSGS
151	CPNATSKSGF	FATMAWAVPK	DNNKNATNPL	TVEVPYICTE	GEDQITVWGF
201	HSDDKTQMKN	LYGDSNPQKF	TSSANGVTTH	YVSQIGSFPD	QTEDGGLPQS
251	GRIVVDDYMMQ	KPGKTGTIVY	QRGVLLPQKV	WCASGRSKVI	KGSLPLIGEA
301	DCLHEKYGGL	NKSKPYTGE	HAKAIGNCPI	WVKTPLKLAN	GTKYRPPAKL
351	LKERGFFGAI	AGFLEGGWEG	MIAGWHGYTS	HGAHGVAVAA	DLKSTQEAIN
401	KITKNLNSLS	ELEVKNLQRL	SGAMDELHNE	ILELDEKVDD	LRADTISSQI
451	ELAVLLSNEG	IINSEDEHLL	ALERKCLKML	GPSAVEIGNG	CFETKHKCNG
501	TCLDRIAAGT	FNAGEFSLPT	FDSL NITAAS	LND DGR <a href="#">CRSS</a>	<a href="#">GRLVPRGSPG</a>
551	SGYIPEAPRD	GQAYVRKDGE	WVLLSTFL <a href="#">GH</a>	HHHHHHH	

Plasmid-derived amino acids – [Residues 1 to 8, 536 to 542, 549, 579](#)

**HA protein – Residues 9 to 535\***

Thrombin cleavage sequence – Residues 543 to 548

Trimerizing domain – Residues 550 to 578

His Tag – Residues 580 to 587

\*This represents amino acid residues 16-542 of the B/Florida/4/2006 (Yamagata Lineage) HA protein (GenPept: ACA33493).