

H1 Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, A/Brisbane/59/2007 (H1N1), Recombinant from Baculovirus

Catalog No. NR-28607

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Contributor and Manufacturer:

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Product Description:

The H1 hemagglutinin (HA) protein from influenza A virus, A/Brisbane/59/2007 (H1N1)¹ containing a C-terminal histidine tag was produced High Five™ insect cells using a baculovirus expression vector system¹ 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, as described for the 1918 pandemic virus.² The full-length H1 HA precursor protein is 565 residues (GenPept: ACA28844).

Material Provided:

Each vial contains 50 to 100 µg of purified recombinant HA protein in PBS (pH 7.4) with 50% glycerol. 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 blue ice 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: H1 Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, A/Brisbane/59/2007 (H1N1), Recombinant from Baculovirus, NR-28607.”

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. 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.

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Figure 1

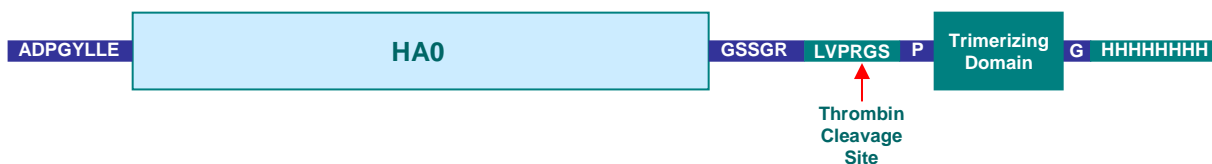


Table 1 – Predicted Protein Sequence

1	<u>ADPGYLLE</u> EDT ICIGYHANN S TDTVDTVLEK NVTVTHSVNL LENSNGKLC
51	LLKGIAPLQL GNCSVAGWIL GNPECELLIS KESWSYIVEK PNPENGTCTYP
101	GHFADYEELR EQLSSVSSF E RFEIFPKESS WPNHTVTGVS ASCSHNGESS
151	FYRNLLWLTG KNGLYPNLSK SYANNKEKEV LVLWGVHPP NIGDQKALYH
201	TENAYVSVVS SHYSRKFTPE IAKRPKVRDQ EGRINYYWTL LEPGDTIIFE
251	ANGNLIAPRY AFALSRGFGS GIINSNAPMD KCDAKCQTPQ GAINSSLPFQ
301	NVHPVTIGEC PKYVRS AKLR MVTGLRNIPS IQSRGLFGAI AGFIEGGWTG
351	MVDGWYGYHH QNEQSGGYAA DQKSTQNAIN GITNKVNSVI EKMNTQFTAV
401	GKEFNKLERR MENLNKKVDD GFIDIWTYNA ELLVLENER TLDFHDSNVK
451	NLYEKVKS QL KNNAKEIGNG CFEFYHKCND ECMESVKNGT YDYPKYSEES
501	<u>KLNREKIDGG</u> <u>SSGR</u> LVPRGS <u>PGSGYIPEAP</u> <u>RDGOAYVRKD</u> <u>GEVLLSTFL</u>
551	<u>G</u> HHHHHHHHH

Plasmid-derived amino acids – Residues 1 to 8, 510 to 514, 521, 551

HA protein – Residues 9 to 509

Thrombin cleavage sequence – Residues 515 to 520

Trimerizing domain – Residues 522 to 550

His Tag – Residues 552 to 559