H7 Hemagglutinin (HA) Protein from Influenza Virus, A/Shanghai/1/2013 (H7N9), Recombinant from Baculovirus

Catalog No. NR-44079

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

A recombinant form of the H7 hemagglutinin (HA) protein from influenza A virus, A/Shanghai/1/2013 (H7N9)[1] was produced in Sf9 insect cells using a baculovirus expression vector system. The predicted transmembrane and endodomain coding regions of the HA gene were replaced with a synthetic gene segment encoding a thrombin cleavage site, trimerizing (foldon) domain and six histidine residues, as described for several influenza A virus subtypes.[2] The HA0 form of the protein was purified by nickel affinity chromatography and then treated with thrombin to remove the foldon domain and the histidine tag. The thrombin-treated protein was further purified prior to final formulation. The full-length HA precursor protein is 560 residues (GISAID EpiFlu: EPI439486).

Material Provided:

Each vial contains 100 µg to 200 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: H7 Hemagglutinin (HA) Protein from Influenza Virus, A/Shanghai/1/2013 (H7N9), Recombinant from Baculovirus, NR-44079."

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. Gao, R. et al. "Human Infection with a Novel Avian-Origin Influenza A (H7N9) Virus." N. Engl. J. Med. 368 (2013): 1888-1897. PubMed: 23577628.
2. Krammer, F., et al. "A Carboxy-Terminal Trimerization Domain Stabilizes Conformational Epitopes on the Stalk Domain of Soluble Recombinant Hemagglutinin Substrates." PLoS One 7 (2012): e43603. PubMed: 22928001.

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