# Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (MALS verified)

Catalog # HA1-V52H8



#### Synonym

HA,Hemagglutinin

#### Source

Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (HA1-V52H8) is expressed from human 293 cells (HEK293). It contains AA Asp 18 -Ile 530 (Accession # EPI\_ISL\_17102775, GISAID).

Predicted N-terminus: Asp 18

## **Molecular Characterization**

HA(Asp 18 - Ile 530) EPI\_ISL\_17102775 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 63 kDa. The protein migrates as 80-95 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### Formulation

Lyophilized from  $0.22 \ \mu m$  filtered solution in PBS,  $0.5 \ M$  Arginine with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

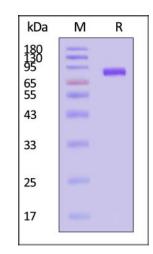
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

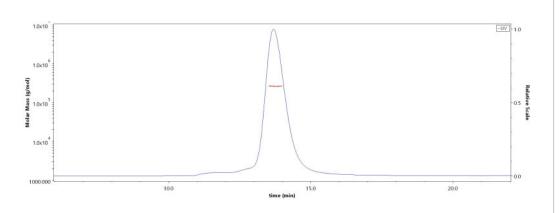
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-</u>

## SEC-MALS



The purity of Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H8) is more than 90% and the molecular weight of this protein is around 220-265 kDa verified by SEC-MALS.

stained Protein Marker).

<u>Report</u>

#### **Bioactivity-ELISA**

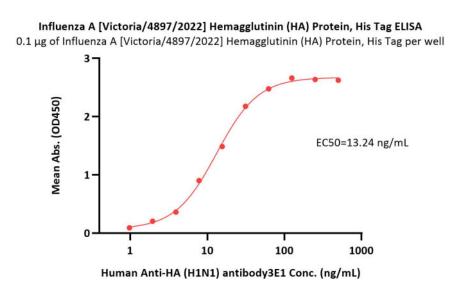




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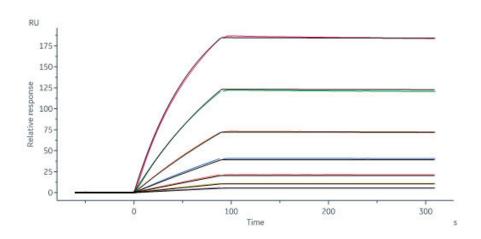


Catalog # HA1-V52H8



Immobilized Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H8) at 1 µg/mL (100 µL/well) can bind Human Anti-HA (H1N1) antibody3E1 with a linear range of 1-31.25 ng/mL (QC tested).

### **Bioactivity-SPR**



Human Anti-HA (H1N1) antibody3E1 captured on Protein A Chip can bind Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H8) with an affinity constant of 4.64 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Background

Neuraminidase (NA) and hemagglutinin (HA) are major membrane glycoproteins found on the surface of influenza virus. Hemagglutinin binds to the sialic acidcontaining receptors on the surface of host cells during initial infection and at the end of an infectious cycle. Hemagglutinin also plays a major role in the determination of host range restriction and virulence. As a class I viral fusion protein, hemagglutinin is responsible for penetration of the virus into the cell cytoplasm by mediating the fusion of the membrane of the endocytosed virus particle with the endosomal membrane.

#### **Clinical and Translational Updates**



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