

**Synonym**

HA,Hemagglutinin

**Source**

Biotinylated Influenza A (A/Darwin/9/2021) Hemagglutinin (HA) Protein, His,Avitag (HA2-V82E6) is expressed from human 293 cells (HEK293). It contains AA Gln 17 - Asp 529 (Accession # EPI\_ISL\_2233240, GISAID). Predicted N-terminus: Gln 17

**Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 64.4 kDa. The protein migrates as 95-115 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Labeling**

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

**Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS 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.*

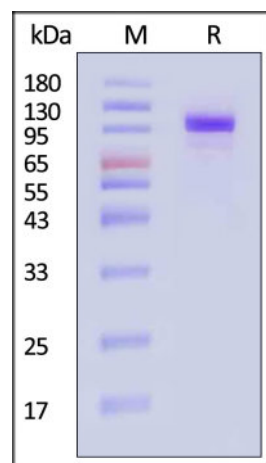
**Storage**

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

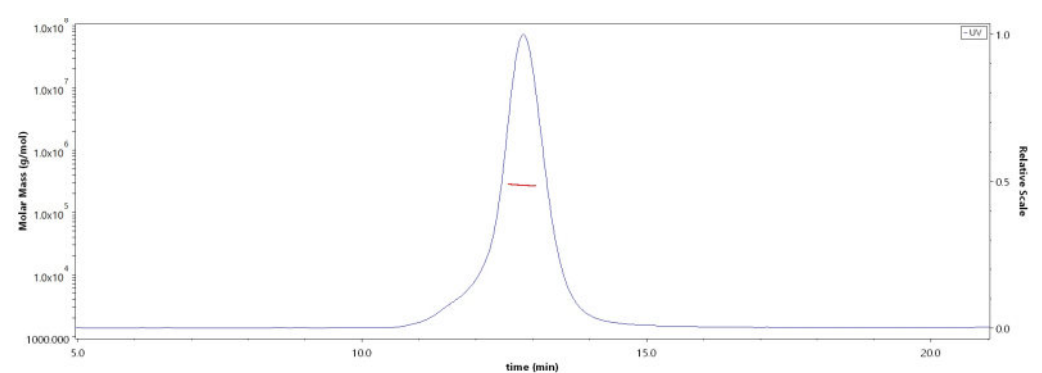
*Please avoid repeated freeze-thaw cycles.*

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**

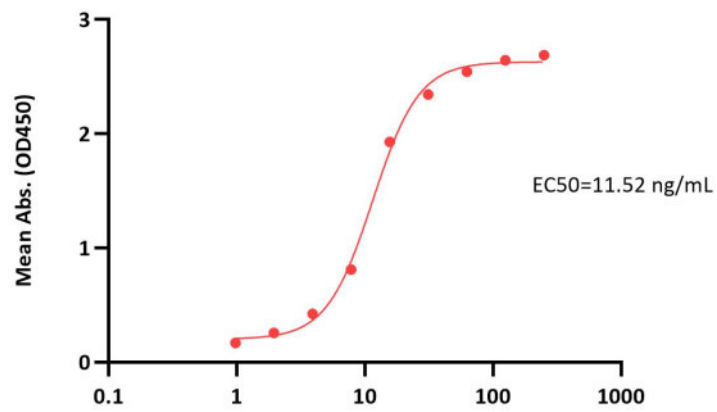
Biotinylated Influenza A (A/Darwin/9/2021) Hemagglutinin (HA) Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

**Bioactivity-ELISA****SEC-MALS**

The purity of Biotinylated Influenza A (A/Darwin/9/2021) Hemagglutinin (HA) Protein, His,Avitag (Cat. No. HA2-V82E6) is more than 90% and the molecular weight of this protein is around 260-280 kDa verified by SEC-MALS.

[Report](#)

Biotinylated Influenza A (A/Darwin/9/2021) Hemagglutinin (HA) Protein, His,Avitag ELISA  
0.1 µg of Human Anti-HA (H3N2) antibody CR8020 Human IgG1 per well



Biotinylated Influenza A (A/Darwin/9/2021) Hemagglutinin (HA) Protein, His,Avitag Conc. (ng/mL)

Immobilized Human Anti-HA (H3N2) antibody CR8020 Human IgG1 at 1 µg/mL (100 µL/well) can bind Biotinylated Influenza A (A/Darwin/9/2021) Hemagglutinin (HA) Protein, His,Avitag (Cat. No. HA2-V82E6) with a linear range of 1-15 ng/mL (QC tested).

## Background

Neuraminidase (NA) and hemagglutinin (HA) are major membrane glycoproteins found on the surface of influenza virus. Hemagglutinin binds to the sialic acid-containing 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.