



### Synonym

HA, Hemagglutinin

### Source

Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein, His Tag (H32-V52H5) is expressed from human 293 cells (HEK293). It contains AA Gln 17 - Asp 529 (Accession # EPI2990337, GISAID).

Predicted N-terminus: Gln 17

### Molecular Characterization

HA(Gln 17 - Asp 529)  
EPI2990337 Poly-his

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

The protein has a calculated MW of 62.7 kDa. The protein migrates as 80-95 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### 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

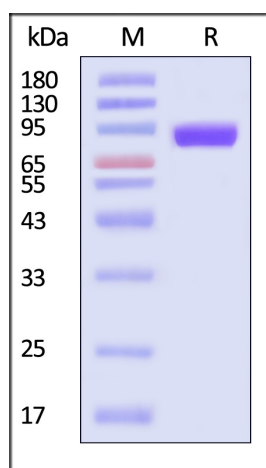
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

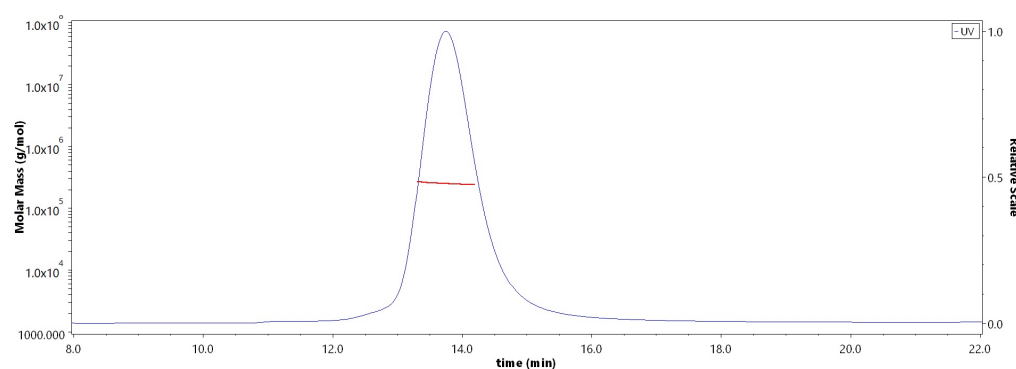
### SDS-PAGE



Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) 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 [Star Ribbon Pre-stained Protein Marker](#)).

### Bioactivity-ELISA

### SEC-MALS



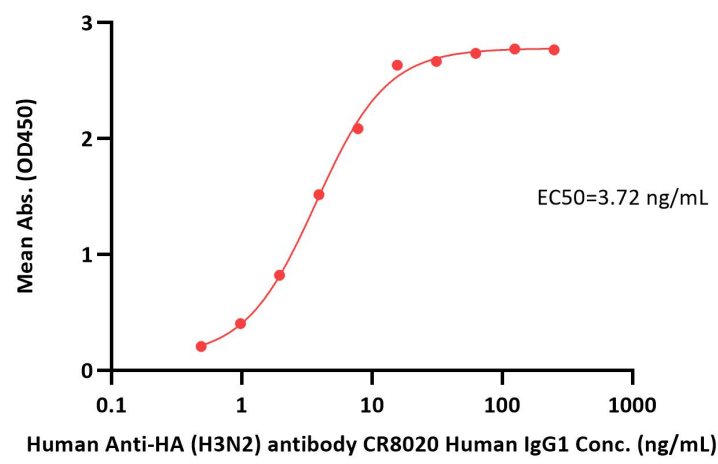
The purity of Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein, His Tag (Cat. No. H32-V52H5) is more than 90% and the molecular weight of this protein is around 240-275 kDa verified by SEC-MALS. [Report](#)

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and more!



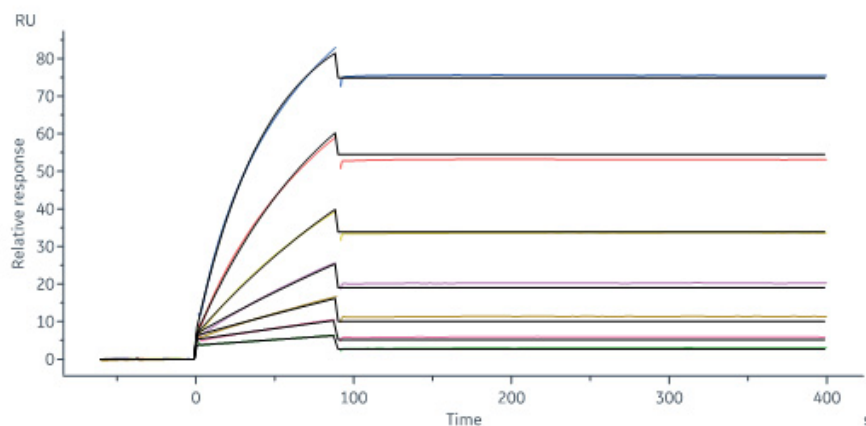


Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein, His Tag ELISA  
0.1 µg of Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein, His Tag per well



Immobilized Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein, His Tag (Cat. No. H32-V52H5) at 1 µg/mL (100 µL/well) can bind Human Anti-HA (H3N2) antibody CR8020 Human IgG1 (Cat. No. AM472) with a linear range of 0.5-8 ng/mL (QC tested).

### Bioactivity-SPR



Monoclonal Anti-HA (H3N2) Antibody, Human IgG1 (CR8020) captured on Protein A Chip can bind Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein (Cat. No. H32-V52H5) with an affinity constant of 2.03 pM as determined in a SPR assay (Biacore 8K) (Routinely tested).

### Background

Influenza, commonly known as 'the flu', is an infectious disease of birds and mammals caused by RNA viruses of the family Orthomyxoviridae, the influenza viruses. The virus is divided into three main types (Influenzavirus A, Influenzavirus B, and Influenzavirus C), which are distinguished by differences in two major internal proteins (hemagglutinin (HA) and neuraminidase (NA)), which are the most important targets for the immune system. 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 which makes it a great target for vaccine studies.

### Clinical and Translational Updates

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