# Monoclonal Anti-HA-H1N1(Influenza A/Sydney/5/2021) Antibody, Human IgG1 (1C10)

Catalog # HA1-M757



#### Source

Monoclonal Anti-HA-H1N1(Influenza A/Sydney/5/2021) Antibody, Human IgG1 (1C10) is a chimeric monoclonal antibody recombinantly expressed from HEK293, which combines the variable region of a mouse monoclonal antibody with Human constant domain.

Clone	Formulation
1C10	Lyophilized from 0.22 $\mu$ m filtered solution in PBS, pH7.4 with trehalose as
Isotype	protectant.
Human IgG1   Human Kappa	Contact us for customized product form or formulation.
Conjugate	Reconstitution
	Please see Certificate of Analysis for specific instructions.
Unconjugated	For best performance, we strongly recommend you to follow the reconstitution
Antibody Type	protocol provided in the CoA.
Recombinant Monoclonal	Storage
Reactivity	For long term storage, the product should be stored at lyophilized state at -20°C
Virus	or lower.
Specificity	Please avoid repeated freeze-thaw cycles.
	This product is stable after storage at:
This product is a specific antibody specifically reacts with HA.	• -20°C to -70°C for 12 months in lyophilized state;
Application	• -70°C for 3 months under sterile conditions after reconstitution.

Purity

**Purification** 

>95% as determined by SDS-PAGE.

Protein A purified/ Protein G purified

Application	Recommended Usage
Western Blot	1-10 ug/mL

ELISA 1.6-12.5 ng/mL

## **Cross Verification**

This product can cross in Elisa with Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H8). Influenza A [Wisconsin/67/2022] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H7). Influenza A (A/Georgia/12/2022) Hemagglutinin (HA) Protein, His Tag (Cat. No. HAE-V52H7). This product No cross-reactivity in ELISA with Influenza A [A/Victoria/2570/2019] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H6). Influenza A [A/Darwin/6/2021 (H3N2)] HA Protein, His Tag (Cat. No. HA2-V52H5). Influenza A [A/Darwin/6/2021 (H3N2)] HA Protein, His Tag (Cat. No. HA2-V52H5).

Influenza A [A/Darwin/6/2021 (H3N2)] HA Protein, His Tag (Cat. No. HA2-V52H5). Influenza A (Vietnam/1194/2004(H5N1)) Hemagglutinin (HA) Protein, His Tag (Cat. No. HA1-V52H9). Influenza A (Guangdong/18SF020(H5N6)) Hemagglutinin (HA) Protein, His Tag (Cat. No.HA6-V52H3). Influenza A (turkey/Germany-MV/R2472/2014(H5N8)) HA Protein, His Tag (Cat. No. HA8-V52H3). Influenza A (A/Shanghai/02/2013(H7N9)) Hemagglutinin (HA) Protein, His Tag (Cat. No. HA9-V52H3). Influenza A [A/guinea fowl/Hong Kong/WF10/99(H9N2)] Hemagglutinin (HA) Protein, His Tag (Cat. No. HA2-V52H7). Influenza B [Austria/1359417/2021 (B/Victoria lineage)] Hemagglutinin (HA) Protein, His Tag (Cat. No. HAE-V52H3).



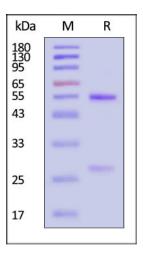
## Monoclonal Anti-HA-H1N1(Influenza A/Sydney/5/2021) Antibody, Human IgG1 (1C10)



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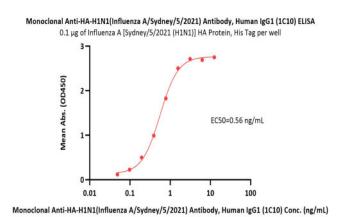
Influenza B [Phuket/3073/2013 (B/Yamagata lineage)] HA Protein, His Tag (Cat. No. HAE-V52H4).
Influenza A [A/Bangkok/1/1979 (H3N2)] HA, His Tag (Cat. No. HA2-V52H3).
Influenza A [A/Wisconsin/588/2019 (H1N1)] HA, His Tag (Cat. No. HA1-V52H3).
Influenza A Virus HA (H3N2) Protein, His Tag (Cat. No. H32-V52H3).
Influenza B (B/Singapore/INFTT-16-0610/2016) Hemagglutinin (HA) Protein, His Tag (Cat. No. HAE-V52H5).
Influenza B (B/Singapore/WUH4618/2021) Hemagglutinin (HA) Protein, His Tag (Cat. No. HAE-V52H6).
Influenza A (A/Sydney/1304/2022) Hemagglutinin (HA) Protein, His Tag (Cat. No. HA2-V52H9).
This product No cross-reactivity in ELISA with
Influenza A Virus (A/District of Columbia/27/2023) HA (H3N2) Protein, His Tag (Cat. No. H32-V52H5).
Influenza A Virus (A/Croatia/10136RV/2023) HA (H3N2) Protein, His Tag (Cat. No. H32-V52H4).

### **SDS-PAGE**



Monoclonal Anti-HA-H1N1(Influenza A/Sydney/5/2021) Antibody, Human IgG1 (1C10) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star</u> <u>Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**



Immobilized Influenza A [Sydney/5/2021 (H1N1)] HA Protein, His Tag (Cat. No. HA1-V52H4) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-HA-H1N1(Influenza A/Sydney/5/2021) Antibody, Human IgG1 (1C10) (Cat. No. HA1-M757) with a linear range of 0.05-2 ng/mL (QC tested).



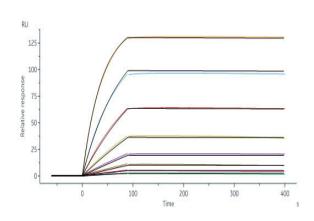
**Bioactivity-SPR** 

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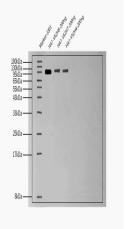


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Monoclonal Anti-HA-H1N1 (Influenza A/Sydney/5/2021) Antibody, Human IgG1 (1C10) (Cat. No. HA1-M757) captured on Protein A Chip can bind Influenza A [Sydney/5/2021 (H1N1)] HA Protein, His Tag (Cat. No. HA1-V52H4) with an affinity constant of 0.334 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

### Western Blot



Detection of Anti-HA-H1N1(Influenza ASydney52021)-1C10,Human,Human IgG1 Human Kappa by Western Blot. Anti-HA-H1N1(Influenza ASydney52021)-1C10,Human,Human IgG1 Human Kappa at 1/1000 dilution + Influenza A [Victoria/4897/2022] Hemagglutinin (HA) Protein, His Tag (MALS verified) at 200ng & Influenza A [Wisconsin/67/2022] Hemagglutinin (HA) Protein, His Tag (MALS verified) at 200ng & Influenza A [Sydney/5/2021 (H1N1)] Hemagglutinin (HA) Protein, His Tag (MALS verified) at 200ng.

Secondary Antibody: (HFC)-HRP Goat Anti-Human IgG,Fcγ fragment specific (min X Bov,Hrs,Ms Sr Prot) at 1/2000 dilution.

Predicted band size: 95 kDa&100 kDa&100 kDa 12% Bis-Tris Protein Gel.

### 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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