# Influenza A H10N8 Hemagglutinin / HA Neutralizing Antibody

**Catalog Number:** **40359-mh001**

| General Information | |
|---|---|
| **Immunogen:** | Recombinant Influenza A H10N8 (A/Jiangxi-Donghu/346/2013) Hemagglutinin / HA protein (Catalog#40359-V08B) |
| **Clone ID:** | mh001 |
| **Ig Type:** | mouse (varialbe region) / human (kappa / IgG1 constant) chimeric antibody |
| **Applications:** | Hemagglutinin Inhibition (HI), Microneutralizaiton (MN) (Antibody's applications have not been validated with corresponding viruses. Optimal concentrations/dilutions should be determined by the end user.) |
| **Specificity:** | Influenza A H10N8 (A/Jiangxi-Donghu/346/2013) Hemagglutinin / HA |
| **Formulation:** | 0.2 μm filtered solution in PBS |
| **Storage:** | < -20℃ |

## Preparation

It is a chimeric monoclonal antibody combining the constant domains of the human IgG1 molecule with mouse variable regions. The variable region was obtained from a mouse immunized with purified, recombinant Influenza A H10N8 (A/Jiangxi-Donghu/346/2013) Hemagglutinin / HA. The antibody was produced using recombinant antibody technology.

## Specificity

Influenza A H10N8 (A/Jiangxi-Donghu/346/2013) Hemagglutinin / HA
**Has cross-reactivity** with H10N3 (A/duck/Hong Kong/786/1979) Hemagglutinin (Catalog#11693-V08H)/ H10N8 (A/duck/Guangdong/E1/2012) Hemagglutinin (Catalog#40351-V08H1)
**No cross-reactivity** with H10N3 (A/mallard/Minnesota/Sg-00194/2007) Hemagglutinin (Catalog#40184-V08B) in ELISA assay.

## Storage

This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. **Preservative-Free.**
Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

## Background

Hemagglutinin (HA) is a single-pass type I integral membrane glycoprotein from the influenza virus, and comprises over 80% of the envelope proteins present in the virus particle. In natural infection, inactive HA is matured into HA1 and HA2 outside the cell by one or more trypsin-like, arginine-specific endoprotease secreted by the bronchial epithelial cells. Binding of HA to sialic acid-containing receptors on the surface of its target cell brings about the attachment of the virus particle to the cell and forms a endosome. Low pH in endosomes induce an irreversible conformational change in HA2, releasing the hydrophobic portion "fusion peptide". After which, virus penetrates the cell and pours its contents including the RNA genome into the cytoplasm mediated by fusion of the endocytosed virus particle's own membrane and the endosomal membrane. Hemagglutinin plays a major role in the determination of host range restriction and virulence. The influenza A genome consist of 8 RNA segments. Genetic variation of hemagglutinin and/or neuraminidase genes results in the emergence of new influenza strains.

## Reference

Günther-Ausborn, S. et al., 2000, J. Virol. 74: 2714-2720.
Hoffman, LR. et al., 1997, J. Virol. 71: 8808-8820.
Marjuki, H. et al., 2006, J. Biol. Chem. 281: 16707-16715.
Gething, M-J. et al., 1980, Nature. 287: 301-306.
Lin, Y.P. et al., 2000, Proc. Natl. Acad. Sci. U.S.A. 97: 9654-9658.
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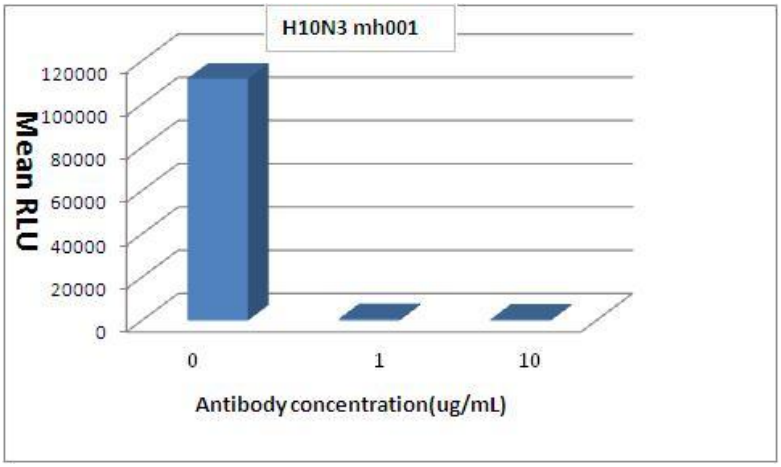
## Applications

**Hemagglutinin Inhibition (HI) -** This H10N8 HA protein Neutralizing Antibody can block the binding of the recombinant H10N8 HA protein to sialic acid and inhibit the hemagglutinin activity of recombinant H10N8 HA protein. The HI titer is 0.1-0.4 μg/mL When 1 unit of H10N8 HA protein (Catalog#40359-V08B) added.

**Microneutralizaiton (MN)** - The influenza A H10N8 HA Neutralizing Antibody can effectively neutralize the H10N8 pseduotype virus which contain HIV backbone and H10N8 HA protein from infecting 293FT cells.




**The neutralization activity of H10N8 HA protein antibody is Measured by Microneutralization test in vitro.** The pseudovirus microneutralizaiton (MN) test was performed on 293FT cells infected with H10N8 (A/Jiangxi-Donghu/346/2013) pseudovirus under the treatment of serial dilution of Neutralizing Antibody. The inhibition is 99.3% under 1 μg/mL influenza A H10N8 HA Neutralizing Antibody (Catalog#40359-mh001) with high titer H10N8 pseduotype virus.