

Mouse Monoclonal Antibody to Influenza A Virus H5N1 (Avian Flu) HA



Sino Biological
Biological Solution Specialist

Catalog Number: 11048-MM01

General Information	
Immunogen:	Recombinant H5N1 HA protein
Clone ID:	9F2E3F3
Ig Type:	Mouse IgG1
Applications:	WB, ELISAB/N
	IHC, FCM, IF, IP et al. applications haven't been validated. (Antibody's applications haven't been validated with corresponding virus positive samples. Optimal concentrations/dilutions should be determined by the end user.)
Specificity:	H5N1 (A/Anhui/1/2005) HA
Formulation:	0.2 µm filtered solution in PBS
Storage:	< -20° C

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Influenza A virus H5N1 (Avian Flu) hemagglutinin extracellular domain. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.

Applications

Neutralization – This antibody has neutralizing activity against **H5N1 (A/Anhui/1/2005) strain** and **H5N1 (A/bar-headed goose/Qinghai/14/2008) strain**, but no neutralizing activity against H1N1 strains through pseudotyped neutralization assay. Other H5N1 strains were not tested. The concentration of this antibody with 50% neutralization is 2 µg/ml

Western blot – This antibody can be used at 0.1 - 1 µg/mL with the appropriate secondary reagents to detect H5N1 HA in WB

ELISA – This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect H5N1 HA. The detection limit for H5N1 HA is **2.5 ng/well**

Specificity

H5N1 (A/Anhui/1/2005) HA

Has cross-reactivity in ELISA with

H5N1 (A/chicken/India/NIV33487/2006) HA

H5N1 (A/whooper swan/Mongolia/244/2005) HA

H5N1 (A/goose/Guizhou/337/2006) HA

H5N1 (A/Cambodia/R0405050/2007) HA

H5N1 (A/Egypt/2321-NAMRU3/2007) HA

H5N3 (A/duck/Hokkaido/167/2007) HA

H5N1 (A/bar-headed goose/Qinghai/14/2008) HA

H5N1 (A/Common magpie/Hong Kong/2256/2006) HA

No cross-reactivity in ELISA with

H1N1 (A/California/04/2009) HA

H1N1 (A/Brisbane/59/2007) HA

Human cell lysate (293 cell line)

H5N1 (A/Hong Kong/483/97) HA

H5N1 (A/Viet Nam/1203/2004) HA

H5N1 (A/Indonesia/5/2005) HA

H5N1 (A/duck/Hunan/795/2002) HA

H5N1 (A/Egypt/N05056/2009) HA

H5N8 (A/duck/NY/191255-59/2002) HA

H5N1 (A/turkey/Turkey/1/2005) HA

H3N2 (A/Brisbane/10/2007) HA

Influenza B (B/Florida/4/2006) HA

[Our Online H1N1 \(Swine & Seasonal\), H5N1 Hemagglutinin \(HA\) Protein & Antibody](#)

Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **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

Influenza (flu) is a respiratory infection in mammals and birds. This virus is divided into three main types (A, B and C). Influenza A is found in a wide variety of bird and mammal species. Influenza B is largely confined to humans and is an important cause of morbidity. Influenza C infects humans, dogs and pigs, sometimes causing both severe illness and local epidemics. Influenza A is further divided into subtypes based on differences in the membrane proteins hemagglutinin (HA) and neuraminidase (NA). The notation HhNn is used to refer to the subtype comprising the hth discovered HA protein and the nth discovered NA protein. The HA is a trimer with a receptor binding pocket on the globular head of each monomer. Subtypes are further divided into strains. Each genetically distinct virus isolate is usually considered to be a separate strain.

Influenza A virus subtype H5N1, also known as "bird flu", A(H5N1) or simply H5N1, is a subtype of the Influenza A virus which can cause illness in humans and many other animal species. H5N1 is easily transmissible between birds facilitating a potential global spread of H5N1. It is mainly spread by domestic poultry, both through the movements of infected birds and poultry products and through the use of infected poultry manure as fertilizer or feed. Humans with H5N1 have typically caught it from chickens, which were in turn infected by other poultry or waterfowl. Influenza H5N1 (A/Anhui/1/2005) virus was isolated from a specimen of tracheal aspirate. The whole genome sequencing indicated that all segments were of avian origin. The hemagglutinin receptor binding site was similar to those of other avian H5N1 viruses, and a polybasic amino acid cleavage site was present.

Reference

1. Li KS, et al., 2004, Nature. 430: 209-213.
2. van RD, et al., 2006, Science. 312: 399.
3. Shinya K, et al., 2006, Nature. 440 (7083): 435-436.
4. Taubenberger JK, et al., 2008, Annu Rev Pathol. 3: 499-522.
5. Christophe F, et al., 2009, Science. 324:1557-1561.

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