

Avian Influenza A Hemagglutinin Antibody

Avian Influenza A H5N1 Hemagglutinin (clone 1E7D8): H5N1 Hemagglutinin

CATALOG No.: PM-4008

BACKGROUND:

Influenza A virus is a major public health threat, killing more than 30,000 people per year in the USA (1). Novel influenza virus strains caused by genetic drift and viral recombination emerge periodically to which humans have little or no immunity, resulting in devastating pandemics. Influenza A can exist in a variety of animals; however it is in birds that all subtypes can be found (2). These subtypes are classified based on the combination of the virus coat glycoproteins hemagglutinin (HA) and neuraminidase (NA) subtypes. During 1997, an H5N1 avian influenza virus was determined to be the cause of death in 6 of 18 infected patients in Hong Kong (3). The more recent virulent strain of H5N1 is now seen in Africa and Europe, as well as in southeast Asia. There is some evidence of human to human spread of this virus, but it is thought that the transmission efficiency was fairly low (4). HA interacts with cell surface proteins containing oligosaccharides with terminal sialyl residues. Virus isolated from a human infected with the H5N1 strain in 1997 could bind to oligosaccharides from human as well as avian sources, indicating its species-jumping ability (5). While efforts were made to use relatively conserved regions of the viral sequence as the antigen, the influenza virus genome has drifted somewhat from what was first reported. However, this antibody was able to recognize peptides derived from viruses from Indonesian human patients infected in 2007.

SOURCE:

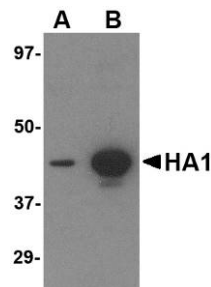
Mouse monoclonal Hemagglutinin antibody was raised against a synthetic peptide corresponding to 13 amino acids in the middle of the Hemagglutinin protein (Genbank accession no. AAT76166). This sequence is identical to the immunogen used to generate polyclonal AFHA-3 antibody (Cat. No. 3911).

STORAGE:

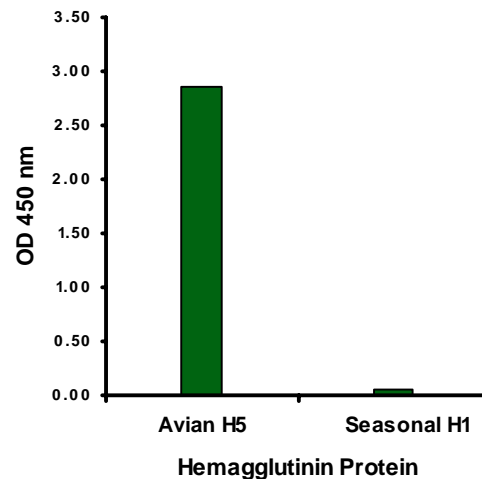
Hemagglutinin antibody is supplied as immunoaffinity chromatography purified IgG in PBS containing 0.02% sodium azide. Store at 4°C; stable for one year.

APPLICATION:

Hemagglutinin antibody can be used for the detection of the Hemagglutinin protein from the H5N1 strain of avian influenza A in ELISA or immunoblot (Optimal dilution should be determined by the user). In ELISA, it will detect 10 ng of free peptide at 1 µg/ml. **For research use only.**



Western blot analysis of (A) 5 ng and (B) 25 ng of recombinant Hemagglutinin (HA1) using H5N1 Hemagglutinin antibody (Cat. No. PM-4008; 1 µg/ml.)



Avian influenza A H5N1 antibody (Cat. No. PM-4008; 2 µg/ml) specifically recognizes Avian Influenza A (H5N1), but not seasonal influenza A (H1N1), Hemagglutinin protein in ELISA.

RELATED PRODUCTS:

Blocking peptide: Catalog No. **3911P**
H5N1 Hemagglutinin HA1 Recombinant Protein: Catalog No. **95-101**
Hemagglutinin Antibody (clone 4F1F2): Catalog No. **PM-4005**
Hemagglutinin Antibody (clone 1E6A7): Catalog No. **PM-4007**
Hemagglutinin Antibody (clone 7B9B2), Catalog No. **PM-4009**
AFHA-3 Antibody: Catalog No. **3911**
Neuraminidase Antibody (IN), Catalog No. **3421**
Neuraminidase Antibody (CT), Catalog No. **3423**

REFERENCES:

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2. Alexander DJ. A review of avian influenza. Proceedings of the European Society for Veterinary Virology (ESVV) Symposium on Influenza Viruses of Wild and Domestic Animals. *Vet. Microbiol.* 2000; 74:3-13.
3. Shorridge KF, Zhou NN, Guan Y, et al. Characterization of avian H5N1 influenza viruses from poultry in Hong Kong. *Viol.* 1998; 252:331-342.
4. Buxton Bridges C, Katz JM, Seto WH, et al. Risk of influenza A (H5N1) infection among health care workers exposed to patients with influenza A (H5N1), Hong Kong. *J. Inf. Dis.* 2000; 181:344-8.
5. Iwatsuki-Horimoto K, Kanazawa R, Sugii S, et al. The index influenza A virus subtype H5N1 isolated from a human in 1997 differs in its receptor-binding properties from a virulent avian influenza virus. *J. Gen. Virol.* 2004; 85:1001-5.

(08-02D)