

Monoclonal Antibody to Influenza A (Hemagglutinin H5) (VN04-2) A/Vietnam/1203/04 (H5N1) - Ascites

Alternate names:	Avian Influenza A H5N1 H5 Hemagglutinin
Catalog No.:	AM08442SU-N
Quantity:	0.1 ml
Background:	Antibody raised against the hemagglutinin (HA) surface glycoprotein of the A/Vietnam/1203/04 (H5N1) influenza virus. Generally referred to as "bird flu", the H5N1 influenza A virus has been documented in poultry and humans across ten Eurasian countries, from Japan in the north to Indonesia in the south. Without immunity, humans would have no protection against H5N1 influenza viruses, which could potentially cause a catastrophic pandemic influenza. This antibody, directed against the HA surface glycoprotein of the A/Vietnam/1203/04 (H5N1) influenza virus, is intended to further our understanding of the mechanisms underlying antigenic variation and evolution of novel variants. The major functions of HA include receptor-binding and fusion activities, but there may also be a structural role for HA in viral particle formation. Following attachment of HA to surface receptors on susceptible cells, the influenza virus enters the cell via endocytosis and membrane fusion.
Host / Isotype:	Mouse / IgG2a
Clone:	15A3
Immunogen:	This monoclonal antibody was produced by intraperitoneal immunization of BALB/c mice with concentrated purified virus preparation containing hemagglutinin (HA) protein of influenza A virus [strain A/Vietnam/1203/04 (H5N1)] using the modification of the method described by Kohler and Milstein. Each mouse received two immunizations of 15 µg HA with incomplete Freund's adjuvant, administered 3 week apart.
Format:	State: Liquid Ascites Preservatives: 0.01% (w/v) Sodium Azide
Applications:	ELISA: 1/5000. Hemagglutination Inhibition: This monoclonal antibody can be used for hemagglutination inhibition (HI) assays to provide antigenic characterization of the influenza A viruses of the H5 HA subtype. Neutralization: This monoclonal antibody is suitable for virus neutralization assays (in cell culture and in embryonated chicken eggs). Immunoprecipitation. Immunohistochemistry. Western blotting. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody is specific for H5 hemagglutinin (HA) protein of influenza A virus [strain A/Vietnam/1203/04 (H5N1)]

This product was clarified from mouse ascitic fluid and is specific for H5 hemagglutinin (HA) protein of influenza A virus [strain A/Vietnam/1203/04 (H5N1)]. VN04-2 monoclonal antibody did not cross-react with influenza viruses of other HA subtypes.

This monoclonal antibody reacted with H5N1 influenza virus representatives of different clades and subclades of the H5 HA subtype.

Storage:

Upon receipt, store undiluted (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Guan, Y., et al. (2004) H5N1 Influenza: A Protean Pandemic Threat. Proc. Natl. Acad. Sci. U.S.A. 101: 8156–8161.
2. Li KS, Guan Y, Wang J, Smith GJ, Xu KM, Duan L, et al. Genesis of a highly pathogenic and potentially pandemic H5N1 influenza virus in eastern Asia. Nature. 2004 Jul 8;430(6996):209-13. PubMed PMID: 15241415.
3. Stevens J, Blixt O, Tumpey TM, Taubenberger JK, Paulson JC, Wilson IA. Structure and receptor specificity of the hemagglutinin from an H5N1 influenza virus. Science. 2006 Apr 21;312(5772):404-10. Epub 2006 Mar 16. PubMed PMID: 16543414.
4. Hatta M, Gao P, Halfmann P, Kawaoka Y. Molecular basis for high virulence of Hong Kong H5N1 influenza A viruses. Science. 2001 Sep 7;293(5536):1840-2. PubMed PMID: 11546875.
5. Webster RG, Laver WG, Air GM, Ward C, Gerhard W, van Wyke KL. The mechanism of antigenic drift in influenza viruses: analysis of Hong Kong (H3N2) variants with monoclonal antibodies to the hemagglutinin molecule. Ann N Y Acad Sci. 1980;354:142-61. PubMed PMID: 6164328.