

Mouse Anti-Influenza A [M2110169]: MC0146

Intended Use: For Research Use Only

Description: Influenza virus is a type of enveloped, segmented, negative-sense, single-stranded RNA virus of the Orthomyxoviridae family. There are three major antigenic types of influenza virus that are clinically relevant to humans, including Flu A, B and C. Flu A viruses affect humans and bird populations, whilst Flu B and C only infect humans. Based on the antigenicity of the glycoproteins, influenza A viruses are subdivided into sixteen H (H1-H16) and nine N (N1-N9) subtypes. The main antigenic determinants of influenza A and B viruses are the hemagglutinin (HA) and neuraminidase (NA) transmembrane glycoproteins. Projections of HA and NA cover the surface of the virus particle. NA forms a tetramer with an average molecular weight of 220 kDa (~55 kDa per monomer). The matrix (M) protein of influenza A virus is one of the two group-specific internal proteins of the virion, The non-structural protein (NP) exists as a homodimer (molecular weight of 52 kDa) consisting of two identical monomers (each ~26 kDa). Flu A viruses are further divided into subtypes based on the expression and combination of two envelope glycoproteins called haemagglutinin (H, also referred to as HA) and neuraminidase (N), which are important targets for the immune system. Flu A viruses undergo high rates of mutation and gene rearrangement which lead to antigenic variations of these glycoproteins. There are 18 H subtypes and 11 N subtypes recognized to date. The subtypes currently circulating among the human population are Flu A (H1N1) and Flu A (H3N2). In most healthy individuals, Flu A causes a self-limiting respiratory illness, but the virus can cause severe illness or death in the elderly and high-risk patients. Transmission of the virus between humans is predominantly the result of contact with contaminated airborne droplets, from an infected individual which are inhaled and enter the respiratory tract, but can also be spread by contaminated hands or surfaces.

Specifications

Clone: M2110169
 Source: Mouse
 Isotype: IgG2a
 Reactivity: Influenza A
 Immunogen: Influenza A from A/Texas strain
 Localization: Nucleus
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
 Storage: Store at 2°- 8°C
 Applications: IHC, ELISA, IF
 Package:

Description	Catalog No.	Size
Influenza A Concentrated	MC0146	1 ml

IHC Procedure*

Positive Control Tissue: Influenza A infected tissues
 Concentrated Dilution: User determined
 Pretreatment: None
 Incubation Time and Temp: Overnight @ 4°C
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.

References:

1. Macrophage-epithelial paracrine crosstalk inhibits lung edema clearance during influenza infection. Peteranderl C, et al. J Clin Invest 126:1566-80, 2016.
2. Paquette SG et al. Influenza Transmission in the Mother-Infant Dyad Leads to Severe Disease, Mammary Gland Infection, and Pathogenesis by Regulating Host Responses. PLoS Pathog 11:e1005173 (2015).
3. An eight-segment swine influenza virus harboring H1 and H3 hemagglutinins is attenuated and protective against H1N1 and H3N2 subtypes in pigs. Masic A, et al. J Virol 87:10114-25, 2013.
4. Treatment with the reactive oxygen species scavenger EUK-207 reduces lung damage and increases survival during 1918 influenza virus infection in mice. Kash JC, et al. Free Radic Biol Med 67C:235-247, 2013.
5. The ability of pandemic influenza virus hemagglutinins to induce lower respiratory pathology is associated with decreased surfactant protein D binding. Qi L, et al. Virology 412:426-34, 2011.