# Influenza A Virus Hemagglutinin (18D5): sc-66144



# BACKGROUND

Influenza A viruses are negative sense, single-stranded, segmented RNA viruses which are hosted by birds, but may infect several species of mammals. All known subtypes are endemic in birds. The subtypes of Influenza A are classified based on the combination of the virus coat glycoproteins hemagglutinin (HA) and neuraminidase (NA) subtypes. There are 16 different HA antigens (H1-H16) and nine different NA antigens (N1-N9) for Influenza A. The extent of infection into host organisms is determined by HA, which interacts with cell surface proteins containing oligosaccharides with terminal sialyl residues.

#### **REFERENCES**

- 1. Green, N., Alexander, H., Olson, A., Alexander, S., Shinnick, T.M., Sutcliffe, J.G. and Lerner, R.A. 1982. Immunogenic structure of the influenza virus hemagglutinin. Cell 28: 477-487.
- 2. Gething, M.J., McCammon, K. and Sambrook, J. 1986. Expression of wildtype and mutant forms of Influenza Hemagglutinin: the role of folding in intracellular transport. Cell 46: 939-950.
- 3. Webster, R.G. and Rott, R. 1987. Influenza virus A pathogenicity: the pivotal role of hemagglutinin. Cell 50: 665-666.
- 4. Wilson, I.A. and Cox, N.J. 1990. Structural basis of immune recognition of influenza virus hemagglutinin. Annu. Rev. Immunol. 8: 737-771.
- 5. Skehel, J.J. and Wiley, D.C. 2000. Receptor binding and membrane fusion in virus entry: the influenza hemagglutinin. Annu. Rev. Biochem. 69: 531-569.
- 6. Huang, Q., Sivaramakrishna, R.P., Ludwig, K., Korte, T., Bottcher, C. and Herrmann, A. 2003. Early steps of the conformational change of influenza virus hemagglutinin to a fusion active state: stability and energetics of the hemagglutinin. Biochim. Biophys. Acta 1614: 3-13.
- 7. Takeda, M., Leser, G.P., Russell, C.J. and Lamb, R.A. 2003. Influenza virus hemagglutinin concentrates in lipid raft microdomains for efficient viral fusion. Proc. Natl. Acad. Sci. USA 100: 14610-14617.
- 8. Borrego-Diaz, E., Peeples, M.E., Markosyan, R.M., Melikyan, G.B. and Cohen, F.S. 2003. Completion of trimeric hairpin formation of influenza virus hemagglutinin promotes fusion pore opening and enlargement. Virology 316: 234-244.
- 9. Lau, W.L., Ege, D.S., Lear, J.D., Hammer, D.A. and DeGrado, W.F. 2004. Oligomerization of fusogenic peptides promotes membrane fusion by enhancing membrane destabilization. Biophys. J. 86: 272-284.

# SOURCE

Influenza A Virus Hemagglutinin (18D5) is a mouse monoclonal antibody raised against purified Influenza A Virus strain H5N1 of avian origin.

# PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **APPLICATIONS**

Influenza A Virus Hemagglutinin (18D5) is recommended for detection of Hemagglutinin of Influenza A Virus origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Influenza A Virus Hemagglutinin: 28 kDa.

#### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### **RESEARCH USE**

For research use only, not for use in diagnostic procedures

#### **PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.