



Influenza A Virus Hemagglutinin (IV.C102): sc-80550

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

- Green, N., et al. 1982. Immunogenic structure of the Influenza Virus Hemagglutinin. *Cell* 28: 477-487.
- Gething, M.J., et al. 1986. Expression of wildtype and mutant forms of Influenza Hemagglutinin: the role of folding in intracellular transport. *Cell* 46: 939-950.
- Webster, R.G. and Rott, R. 1987. Influenza Virus A pathogenicity: the pivotal role of Hemagglutinin. *Cell* 50: 665-666.
- Wilson, I.A. and Cox, N.J. 1990. Structural basis of immune recognition of Influenza Virus Hemagglutinin. *Annu. Rev. Immunol.* 8: 737-771.
- 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.
- Huang, Q., et al. 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.
- Takeda, M., et al. 2003. Influenza Virus Hemagglutinin concentrates in lipid raft microdomains for efficient viral fusion. *Proc. Natl. Acad. Sci. USA* 100: 14610-14617.
- Borrego-Diaz, E., et al. 2003. Completion of trimeric hairpin formation of Influenza Virus Hemagglutinin promotes fusion pore opening and enlargement. *Virology* 316: 234-244.
- Lau, W.L., et al. 2004. Oligomerization of fusogenic peptides promotes membrane fusion by enhancing membrane destabilization. *Biophys. J.* 86: 272-284.

SOURCE

Influenza A Virus Hemagglutinin (IV.C102) is a mouse monoclonal antibody raised against purified Influenza Virus A strain H1N1.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Influenza A Virus Hemagglutinin (C102) is recommended for detection of hemagglutinin of H1N1 serotype by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Influenza A Virus Hemagglutinin: 28 kDa.

SELECT PRODUCT CITATIONS

- Xiao, N., et al. 2009. The Tpl2 mutation Sluggish impairs type I IFN production and increases susceptibility to group B streptococcal disease. *J. Immunol.* 183: 7975-7983.
- Smirnov, D., et al. 2011. Vaccine adjuvant activity of 3M-052: an imidazoquinoline designed for local activity without systemic cytokine induction. *Vaccine* 29: 5434-5442.
- Zhong, Y., et al. 2011. Mimotopes selected with neutralizing antibodies against multiple subtypes of Influenza A. *Virology* 418: 542.
- Thompson, C.M., et al. 2015. Critical assessment of Influenza VLP production in Sf9 and HEK293 expression systems. *BMC Biotechnol.* 15: 31.

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.