

Influenza A ns1 (vC-20): sc-17596

BACKGROUND

Influenza viruses are divided into three types, designated A, B and C. Influenza types A and B are responsible for epidemics of respiratory illness that occur almost every winter and are often associated with increased rates for hospitalization and death. Influenza type A viruses are divided into subtypes based on differences in two viral proteins called hemagglutinin (H) and neuraminidase (N). The influenza A virus ns1 protein is a type I IFN antagonist that plays an important role in viral pathogenesis. The interaction of the ns1 protein with host-cell factors plays a significant role in viral pathogenesis. ns1 is a nonstructural protein that is located in the nucleus and affects cellular RNA transport, splicing, and translation. ns2 is a nonstructural protein that localizes to the nucleus and the cytoplasm. ns2 is essential for nuclear export of influenza virus ribonucleoprotein (RNP) complexes.

REFERENCES

1. O'Neill, R.E., et al. 1998. The influenza virus NEP (ns2 protein) mediates the nuclear export of viral ribonucleoproteins. *EMBO J.* 17: 288-296.
2. Wang, X., et al. 2000. Influenza A virus ns1 protein prevents activation of NF κ B and induction of α/β interferon. *J. Virol.* 24: 11566-11573.
3. Neumann, G., et al. 2000. Influenza A virus ns2 protein mediates vRNP nuclear export through NES-independent interaction with hCRM1. *EMBO J.* 19: 6751-6758.
4. Fleming, D.M., et al. 2001. Update on influenza and other viral pneumonias. *Curr. Opin. Infect. Dis.* 2: 199-204.

SOURCE

Influenza A ns1 (vC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Influenza A ns1.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17596 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Influenza A ns1 (vC-20) is recommended for detection of ns1 of Influenza A virus origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

SELECT PRODUCT CITATIONS

1. Ehrhardt, C., et al. 2006. Bivalent role of the phosphatidylinositol-3-kinase (PI3K) during influenza virus infection and host cell defence. *Cell. Microbiol.* 8: 1336-1348.
2. LeBouder, F., et al. 2008. Annexin II incorporated into influenza virus particles supports virus replication by converting plasminogen into plasmin. *J. Virol.* 82: 6820-6828.
3. Xing, Z., et al. 2009. Differential regulation of antiviral and proinflammatory cytokines and suppression of FAS-mediated apoptosis by ns1 of H9N2 avian influenza virus in chicken macrophages. *J. Gen. Virol.* 90: 1109-1118.
4. Zohari, S., et al. 2010. Differences in the ability to suppress interferon β production between allele A and allele B NS1 proteins from H10 influenza A viruses. *Virol. J.* 7: 376.
5. LeBouder, F., et al. 2010. Plasminogen promotes influenza A virus replication through an annexin 2-dependent pathway in the absence of neuraminidase. *J. Gen. Virol.* 91: 2753-2761.
6. Xing, Z., et al. 2010. Host immune and apoptotic responses to avian influenza virus H9N2 in human tracheobronchial epithelial cells. *Am. J. Respir. Cell Mol. Biol.* 44: 24-33.
7. Le Goffic, R., et al. 2011. Transcriptomic analysis of host immune and cell death responses associated with the influenza A virus PB1-F2 protein. *PLoS Pathog.* 7: e1002202.

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 or our catalog for detailed protocols and support products.



Try **Influenza A ns1 (NS1-23-1): sc-130568**, our highly recommended monoclonal alternative to Influenza A ns1 (vC-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Influenza A ns1 (NS1-23-1): sc-130568**.