

Influenza B NP (1B6/B3): sc-80482

BACKGROUND

The Influenza viruses, designated Influenza A, Influenza B and Influenza C, are a group of RNA viruses that belong to the Orthomyxoviridae family and are constantly changing through antigenic drifts and shifts, allowing the viruses to evade the immune system of the host. The viruses transcribe and replicate their genomes in the nuclei of infected cells and rely on the nucleocytoplasmic transport of viral ribonucleoproteins (vRNPs) during their replication process. Influenza B contains several viral proteins, namely Influenza B NP (nucleoprotein), Influenza B HA (hemagglutinin), Influenza B M1 (matrix protein) and Influenza B NA (neuraminidase), all of which are necessary for proper viral function, such as viral DNA replication, transcription, RNA processing and protein synthesis. Influenza A causes pandemics, while Influenza B usually causes minor illnesses (such as the common flu) and Influenza C can lead to mild or asymptomatic disease.

REFERENCES

1. Turner, R., Lathey, J.L., Van Voris, L.P. and Belshe, R.B. 1982. Serological diagnosis of Influenza B NP infection: comparison of an enzyme-linked immunosorbent assay and the hemagglutination inhibition test. *J. Clin. Microbiol.* 15: 824-829.
2. Krystal, M., Young, J.F., Palese, P., Wilson, I.A., Skehel, J.J. and Wiley, D.C. 1983. Sequential mutations in hemagglutinins of Influenza B NP isolates: definition of antigenic domains. *Proc. Natl. Acad. Sci. USA* 80: 4527-4531.
3. Read, R.C., Goodwin, L., Parsons, M.A., Silcocks, P., Kaczmarek, E.B., Parker, A. and Baldwin, T.J. 1999. Coinfection with Influenza B NP does not affect association of *Neisseria meningitidis* with human nasopharyngeal mucosa in organ culture. *Infect. Immun.* 67: 3082-3086.
4. Osterhaus, A.D., Rimmelzwaan, G.F., Martina, B.E., Bestebroer, T.M. and Fouchier, R.A. 2000. Influenza B NP in seals. *Science* 288: 1051-1053.
5. Paragas, J., Talon, J., O'Neill, R.E., Anderson, D.K., García-Sastre, A. and Palese, P. 2001. Influenza B and C Virus NEP (NS2) proteins possess nuclear export activities. *J. Virol.* 75: 7375-7383.
6. Peltola, V., Ziegler, T. and Ruuskanen, O. 2003. Influenza A and B virus infections in children. *Clin. Infect. Dis.* 36: 299-305.
7. Mizuta, K., Itagaki, T., Abiko, C., Murata, T., Takahashi, T. and Murayama, S. 2004. Epidemics of two Victoria and Yamagata Influenza B lineages in Yamagata, Japan. *Epidemiol. Infect.* 132: 721-726.
8. Chi, X.S., Hu, A., Bolar, T.V., Al-Rimawi, W., Zhao, P., Tam, J.S., Rappaport, R. and Cheng, S.M. 2005. Detection and characterization of new Influenza B NP variants in 2002. *J. Clin. Microbiol.* 43: 2345-2349.

SOURCE

Influenza B NP (1B6/B3) is a mouse monoclonal antibody raised against unpurified Influenza B/Lee/40 virus and purified Influenza B virus.

PRODUCT

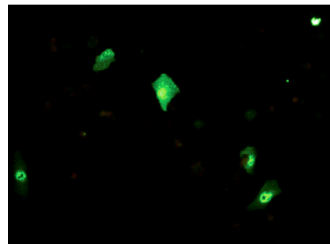
Each vial contains 100 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Influenza B NP (1B6/B3) is recommended for detection of nucleoprotein (NP) of Influenza B Virus origin 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); non cross-reactive with Influenza A Virus.

Molecular Weight of Influenza B NP: 64 kDa.

DATA



Influenza B NP (1B6/B3): sc-80482. Immunofluorescence staining of acetone-fixed, Influenza B-infected Vero cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Zheng, W., Fan, W., Zhang, S., Jiao, P., Shang, Y., Cui, L., Mahesutihan, M., Li, J., Wang, D., Gao, G.F., Sun, L. and Liu, W. 2019. Naproxen exhibits broad anti-influenza virus activity in mice by impeding viral nucleoprotein nuclear export. *Cell Rep.* 27: 1875-1885.

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.