



# Influenza B M1 (1141): sc-57886

## 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., et al. 1982. Serological diagnosis of Influenza B virus infection: comparison of an enzyme-linked immunosorbent assay and the hemagglutination inhibition test. *J. Clin. Microbiol.* 15: 824-829.
2. Krystal, M., et al. 1983. Sequential mutations in hemagglutinins of Influenza B virus isolates: definition of antigenic domains. *Proc. Natl. Acad. Sci. USA* 80: 4527-4531.
3. Read, R.C., et al. 1999. Coinfection with Influenza B virus does not affect association of *Neisseria meningitidis* with human nasopharyngeal mucosa in organ culture. *Infect. Immun.* 67: 3082-3086.
4. Osterhaus, A.D., et al. 2000. Influenza B virus in seals. *Science* 288: 1051-1053.
5. Paragas, J., et al. 2001. Influenza B and C virus NEP (NS2) proteins possess nuclear export activities. *J. Virol.* 75: 7375-7383.
6. Peltola, V., et al. 2003. Influenza A and B virus infections in children. *Clin. Infect. Dis.* 36: 299-305.
7. Mizuta, K., et al. 2004. Epidemics of two Victoria and Yamagata influenza B lineages in Yamagata, Japan. *Epidemiol. Infect.* 132: 721-726.
8. Chi, X.S., et al. 2005. Detection and characterization of new Influenza B virus variants in 2002. *J. Clin. Microbiol.* 43: 2345-2349.

## SOURCE

Influenza B M1 (1141) is a mouse monoclonal antibody raised against Influenza B virus infected cells.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of 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 B M1 (1141) is recommended for detection of matrix protein (M1) of Influenza B virus 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 B M1 matrix protein: 27 kDa.

## SELECT PRODUCT CITATIONS

1. Cao, S., et al. 2014. Characterization of the nucleocytoplasmic shuttle of the matrix protein of Influenza B virus. *J. Virol.* 88: 7464-7473.
2. Zheng, W., et al. 2019. Naproxen exhibits broad anti-influenza virus activity in mice by impeding viral nucleoprotein nuclear export. *Cell Rep.* 27: 1875-1885.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.