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Inspiration for Life Science

Bio Academia

Anti-Influenza B Virus Nucleoprotein antibody, mouse monoclonal (8C8)

65-170 100 µg

Background: Influenza virus nucleoprotein (NP) is a major component of the ribonucleoprotein complex and is abundantly expressed during the course of infection. It is a structural protein, which encapsidates the negative strand viral RNA and is essential for RNA transcription, replication and packaging. From the nucleotide sequence, NP is consists of 560 amino acids with calculated molecular mass of 61,770.

Post-translational modification: Late in virus-infected cells, may be cleaved from a 56-kDa protein to a 53-kDa protein by a cellular caspase. This cleavage might be a marker for the onset of apoptosis in infected cells or have a specific function in virus host interaction.

Applications

1) Immunofluorescent and Immunocytochemical staining (1/100 dilution)
2) Immunoprecipitation (1/100 dilution)
3) ELISA (assay dependent)
   May not suitable for western blotting

Immunogen: Human Influenza B Virus strain Nagasaki/1/87, one of the strains of B/Victoria group.

Specificity: Reacts with NP of all Influenza B viruses so far tested (113 clinical strains), including Yamagata lineage strains; Mie/1/1993, JohanesBurg/5/1999, Florida/4/2006 and Victoria lineage strains; Lee/1940, Gif/21/1973, Shangdong/7/1997, Malasia/2506/2004, Massachustts/2/2012
No cross reactivity with influenza A viruses.

Isotype: mouse IgG1, kappa

Purity: Produced in serum-free medium and purified by proprietary chromatography procedure under mild conditions.

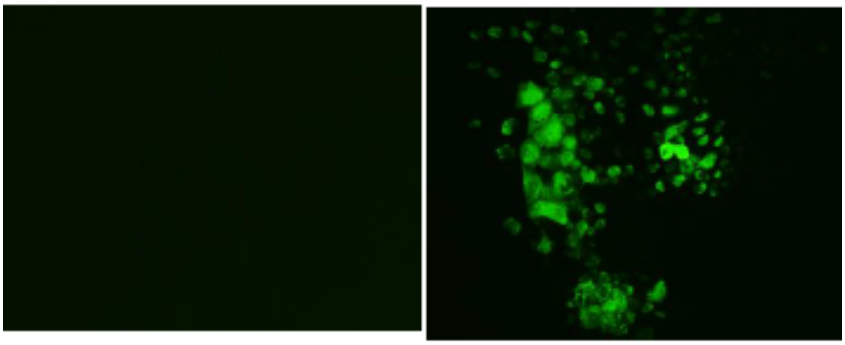
Form: 1 mg/ml in PBS, 50% glycerol, filter sterilized

Storage: Shipped at 4℃ or -20℃, and upon arrival, store at -20℃.

Data Link: UniProtKB P04665 Influenza B virus nucleoprotein

References: This antibody was described and used in the following reference.
Nakagawa N. et al. Rapid detection and identification of two lineages of influenza B strains with monoclonal antibodies. J Virol Methods. 1999;79:113-2 **ICC, IP**

Mock **Infected with B/ Malesia/2506/2004**



Mock Infected with B/ Florida/4/2006

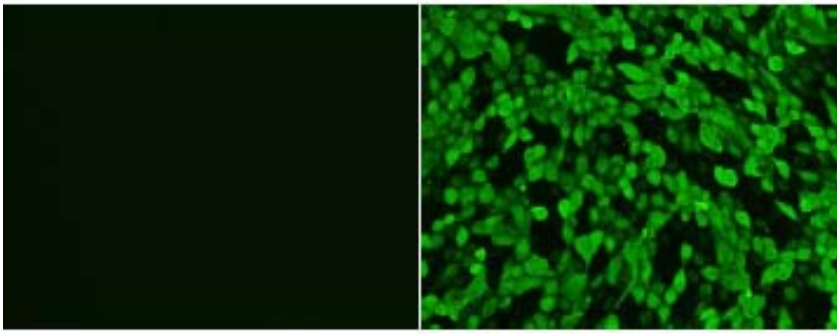


Fig.1 Immunofluorescence assay of MDCK (canine kidney) cells infected with Influenza B virus, using anti-Influenza B virus NP antibody (clone 8C8). Samples were taken at 24 hours post-infection. Anti-Influenza B Virus NP antibody (clone 8C8) efficiently detected the viruses in the infected MDCK cells. The cells were fixed with 4% paraformaldehyde in phosphate-buffered saline (PBS) and permeabilized with 0.1% Triton X-100 in PBS. The bound antibody was visualized by a further reaction with an Alexa Fluor 488-conjugated secondary antibody.
Images on the left are mock-infected MDCK cells as negative control.
The cells infected with an Influenza B virus vaccine strain, Malaysia/2506/2004 as a representative of Victoria group is shown in the upper panel and Florida/4/2006 as Yamagata group in the lower panel.

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