Anti-Influenza A Virus Nucleoprotein antibody (C43), HRP-conjugated

65-111 50 µg

Storage temperature: Ship at 4℃ and store at -20℃. Avoid repeating freeze-thaw.

Immunogen: Human Influenza A Virus H3N2

Specificity: Reacts with NP of all influenza A viruses so far tested, including seasonal H2N2, H3N2(A/Sydney/5/1997), and H5N1(A/crow/Kyoto53/2004), H5N1 (A/duck/Egypt/D2br10/07), H5N1(A/duck/HK/342/78), H5N2(A/crow/Kyoto/53/04), H9N1, H9N2 (A/Turkey/Wisconsin/1/66) and H1N1 (seasonal: A/New Caledonia/20/99. Pandemic: A/Suita/01/2009 and swine: A/PuertoRico/8/34). No cross reactivity with influenza B viruses.

Applications

1) Western blotting (~1,000 fold dilution)
2) Immunocytochemistry (~200 fold dilution)
4) Immunohistochemistry (~200 fold dilution)
5) ELISA (assay dependent)

Isotype: mouse IgG2A

Product: Produced in serum-free medium and purified by proprietary chromatography procedure under mild conditions. Horseradish peroxidase condjugated

Form: 1 mg/ml in PBS, 50% glycerol, filter sterilized. Azide- and carrier-free.

Backgroud: Influenza virus is an RNA virus, which causes influenza, and belongs to the family Orthomyxoviridae. Influenza virus is classified into three different genera, influenzavirus A, B, and C. They all have similar structures and compositions. The virions are 80-100nm in diameter and usually roughly spherical. The outer surface of the virion is made of a viral envelope containing two major glycoproteins, hemagglutinin (HA) and neuraminidase (NA). Influenzavirus A is further classified into subtypes based on the surface glycoproteins, HA and NA. Currently, there are 16 HA and 9 NA subtypes. The central core of the virion contains the viral RNA genome, which is packaged in the form of ribonucleoprotein complexes.

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. NP binds the PB1 and PB2 subunits of the viral RNA polymerase and the matrix protein M1, in addition to its binding to ssRNA. NP is also known to interact with variety of other macromolecules of both viral and cellular origins, and these interactions have been shown to be essential for the viral lifecycle.

Data Link: Swiss-Prot Influenza NP

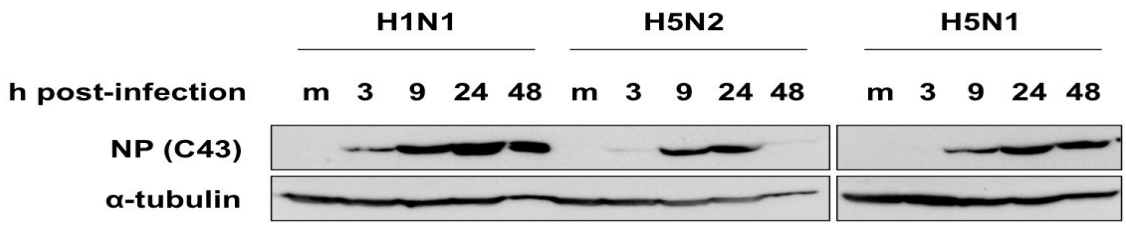

Fig.1. Western blotting of MDCK cells infected with H1N1 (A/PuertoRico/8/34), H5N1 (A/duck/HK/342/78), or H5N2 (A/crow/Kyoto/53/04) using C43 antibody. Samples were collected at 3, 9, 24, and 48 hours post-infection. C43 detected NP after 3 hours post-infection and detected three different types of influenza viruses.

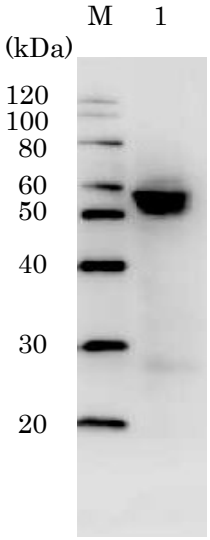

Fig.2 Western blotting of MDCK cells infected with H1N1 (A/PuertoRico/8/34) using HRP-conjugated C43 antibody. Proteins in the infected cell lysate was separated by 15% SDS-PAGE and blotted to PVDF membrane. The membrane was reacted with C43 monoclonal antibody conjugated with HRP at 1/1,000 dilution and visualized by Chemi-Luminescence.

References: This antibody has not yet been used in publication.