

### Swine H1N1 Nucleocapsid Protein Antibody

Catalog # ASC11112

## **Specification**

## Swine H1N1 Nucleocapsid Protein Antibody - Product Information

**Application** IF, E **Primary Accession** C4AL25

Other Accession ACQ76305, 229535818

Reactivity Virus Host Rabbit Clonality **Polyclonal** laG

Isotype

**Application Notes** NP antibody can be used for the detection of the NP protein from the H1N1 strain of swine-origin Influenza A in ELISA. For immunofluorescence start at 20 µg/mL.

## **Swine H1N1 Nucleocapsid Protein Antibody - Additional Information**

#### **Reconstitution & Storage**

Swine H1N1 Nucleocapsid Protein antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

### **Precautions**

Swine H1N1 Nucleocapsid Protein Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Swine H1N1 Nucleocapsid Protein Antibody - Protein Information

# Swine H1N1 Nucleocapsid Protein Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Swine H1N1 Nucleocapsid Protein Antibody - Images



Swine-origin Nucleocapsid Protein antibody specifically recognizes swine-origin influenza virus (S-OIV) A H1N1 but not seasonal influenza virus A H1N1 Nucleocapsid protein.

## Swine H1N1 Nucleocapsid Protein Antibody - Background

Swine H1N1 Nucleocapsid Protein Antibody: Influenza A virus is a major public health threat, killing more than 30, 000 people per year in the USA. In early 2009, a novel swine-origin influenza A (H1N1) virus (S-OIV) was identified in specimens obtained from patients in Mexico and the United States. The influenza A virus polymerase transcribes and replicates eight virion RNA (vRNA) segments, among which the nucleocapsid protein (NP), thought to control whether mRNA or cRNA is produced. The nucleoprotein (NP), which has multiple functions during the virus life cycle, possesses regions that are highly conserved among influenza A, B, and C viruses. It was recently found several NP mutations that affected the efficient incorporation of multiple viral-RNA (vRNA) segments into progeny virions even though a single vRNA segment was incorporated efficiently. This indicates that the respective conserved amino acids in NP may be critical for the assembly and/or incorporation of sets of eight vRNA segments.

### Swine H1N1 Nucleocapsid Protein Antibody - References

Thompson WW, Shay DK, Weintraub, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA2003; 289:179-186.

Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team, Dawood FS, Jain S, et al. Emergence of a novel swine-origin influenza A (H1N1) virus in humans. N. Engl. J. Med.2009; 360:2605-15.

Li Z, Watanabe T, Hatta M, et al. Mutational analysis of conserved amino acids in the influenza A virus nucleoprotein. J. Virol. 2009; 83:4153-62.

Newcomb LL, Kuo RL, Ye Q, et al. Interaction of the influenza a virus nucleocapsid protein with the viral RNA polymerase potentiates unprimed viral RNA replication. J. Virol. 2009; 83:29-36.