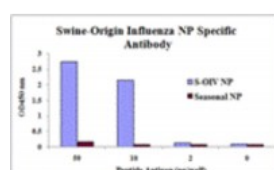




## Swine H1N1 Nucleocapsid Protein Antibody

CATALOG NUMBER: 5715



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

### Specifications

<b>SPECIES REACTIVITY:</b>	Virus
<b>TESTED APPLICATIONS:</b>	ELISA, IF
<b>APPLICATIONS:</b>	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 ug/mL.
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.
<b>SPECIFICITY:</b>	This antibody is specific for the seasonal H1N1 influenza NP and will not recognize the corresponding NP from the seasonal H1N1 influenza (A/Brisbane/97/2007 (H1N1)).
<b>IMMUNOGEN:</b>	NP antibody was raised against a synthetic peptide from the swine-Origin H1N1 NP protein.  The immunogen is located within amino acids 350 - 400 of Swine H1N1 Nucleocapsid Protein.
<b>HOST SPECIES:</b>	Rabbit

### Properties

<b>PURIFICATION:</b>	Swine H1N1 Nucleocapsid Protein Antibody is affinity chromatography purified via peptide column.
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	Swine H1N1 Nucleocapsid Protein Antibody is supplied in PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	1 mg/mL
<b>STORAGE CONDITIONS:</b>	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.
<b>CLONALITY:</b>	Polyclonal
<b>ISOTYPE:</b>	IgG
<b>CONJUGATE:</b>	Unconjugated

### Additional Info

<b>ALTERNATE NAMES:</b>	Swine H1N1 Nucleocapsid Protein Antibody:
<b>ACCESSION NO.:</b>	ACQ76305
<b>PROTEIN GI NO.:</b>	229535818
<b>OFFICIAL SYMBOL:</b>	NP

## Background

**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.

**REFERENCES:**

- 1) Thompson WW, Shay DK, Weintraub, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA2003; 289:179-186.
- 2) 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.
- 3) 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.
- 4) 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.

**FOR RESEARCH USE ONLY**

December 13, 2016