

# Seasonal H1N1 Nucleocapsid Protein Antibody

Catalog # ASC10965

## Product Information

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| Application           | E                                                                                                                  |
| Primary Accession     | <a href="#">I3QSI8</a>                                                                                             |
| Other Accession       | <a href="#">AFK14863</a> , <a href="#">260593857</a>                                                               |
| Reactivity            | Virus                                                                                                              |
| Host                  | Rabbit                                                                                                             |
| Clonality             | Polyclonal                                                                                                         |
| Isotype               | IgG                                                                                                                |
| Concentration (mg/ml) | 1 mg/mL                                                                                                            |
| Conjugate             | Unconjugated                                                                                                       |
| Application Notes     | NP antibody can be used for the detection of the NP protein from the H1N1 strain of Seasonal Influenza A in ELISA. |

## Additional Information

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| Target/Specificity       | NP; This antibody is specific for the seasonal H1N1 influenza NP and will not recognize the corresponding NP sequence from the swine-origin H1N1 influenza (A/California/14/2009 (H1N1)).                                                                                  |
| Reconstitution & Storage | Seasonal 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              | Seasonal H1N1 Nucleocapsid Protein Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                              |

## Protein Information

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### Background

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Seasonal 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

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

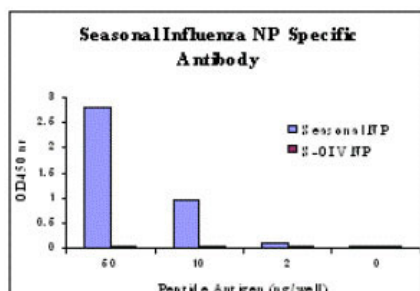
Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team, Dawood FS, Jain S, et al. Emergence of a novel swine-origin influenza A (H1N1) virus in humans. N. Engl. J. Med.2009; 360:2605-15.

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.

## Images

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ELISA results using Seasonal H1N1 Nucleocapsid Protein antibody at 1 µg/mL and the blocking and corresponding peptides at 60, 10, 2 and 0 ng/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.