

H5N1 NS1 antibody (pAb)

Rabbit Anti-Nonstructural Protein 1

Instruction Manual

Catalog Number	PK-AB718-3915
Synonyms	Avian Influenza Nonstructural Protein 1 Antibody; Avian Influenza Nonstructural Protein 1, H5N1 NS1, Nonstructural protein 1
Description	Influenza A virus is a major public health threat, killing more than 30,000 people per year in the USA. Novel influenza virus strains caused by genetic drift and viral recombination emerge periodically to which humans have little or no immunity, resulting in devastating pandemics. Influenza A can exist in a variety of animals; however, it is in birds that all subtypes, including the so-called "avian flu" or H5N1, can be found. These subtypes are classified based on the combination of the virus coat glycoproteins hemagglutinin (HA) and neuraminidase (NA) subtypes. One of the less studied proteins encoded by, but not incorporated in, the influenza virus is the nonstructural protein (NS) 1. NS1 counters cellular antiviral activities and acts as a virulence factor. It can bind to double-stranded RNA and sequester it from 2'-5' OAS, preventing the activation of the RNase L, which normally acts to degrade RNA and prevent virus replication. NS1 also binds to and inhibits the anti-viral protein kinase PKR.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	NS1 antibody was raised against a synthetic peptide corresponding to 14 amino acids at the carboxy terminus of the NS1 protein. Efforts were made to use relatively conserved regions of the viral sequence as the antigen.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Virus
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C 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.
Applications	E I Note: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. Avian Influenza Nonstructural Protein 1 antibody can be used for the detection of the avian influenza nonstructural protein 1 protein from influenza A in ELISA.
Images	NA
References	Thompson WW, Shay DK, Weintraub, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA 2003; 289:179-186. Alexander DJ. A review of avian influenza. Proceedings of the European Society for Veterinary Virology (ESVV) Symposium on Influenza Viruses of Wild and Domestic Animals. Vet. Microbiol. 2000; 74:3-13. Krug RM, Yuan W, Noah D, et al. Intracellular warfare between human influenza viruses and human cells: the role of the viral NS1 protein. Virology 2003; 309:181-9. Min J-Y and Krug RM. The primary function of RNA binding by the influenza A virus NS1 protein is infected cells: inhibiting the 2'-5' oligo (A) synthase/RNase L pathway. Proc. Natl. Acad. Sci. USA 2006; 103:7100-5.
Images	NA
Related Products	H5N1 NS2 Antibody, Cat. No. PK-AB718-3917; Hemagglutinin Antibody, Cat. No. PK-AB718-3425; Hemagglutinin Antibody, Cat. No. PK-AB718-3427; Neuraminidase Antibody, Cat. No. PK-AB718-3423; Neuraminidase Antibody, Cat. No. PK-AB718-3421

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