

Monoclonal Antibody to Influenza A (Nucleoprotein) - Purified

Catalog No.:	SM1747P
Quantity:	1 mg
Concentration:	1.0 mg/ml
Background:	<p>Influenza A virus is a major public health threat. 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 can be found. These subtypes are classified based on the combination of the virus coat glycoproteins hemagglutinin (HA) and neuraminidase (NA) subtypes.</p> <p>In natural infection, inactive HA is matured into HA1 and HA2 outside the cell by one or more trypsin-like, arginine-specific endoprotease secreted by the bronchial epithelial cells.</p>
Host / Isotype:	Mouse / IgG2a
Recommended Isotype Controls:	AM03096PU-N
Clone:	AA5H
Immunogen:	<p>Influenza A / Puerto Rico / 8 / 34 (H1N1) and A/Bangkok / 1 / 79 (H3N2) viruses.</p> <p>Remarks: Spleen cells from BALB/c mice were fused with cells of the P3 Ag8.653 mouse myeloma cell line.</p>
Format:	<p>State: Liquid purified IgG fraction</p> <p>Purification: Affinity Chromatography on Protein A</p> <p>Buffer System: PBS containing 0.09% Sodium Azide as preservative</p>
Applications:	<p>Immunofluorescence.</p> <p>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
Specificity:	<p>This antibody recognises an epitope within Influenza virus A Nucleoprotein.</p> <p>This antibody can be used in Influenza A IFA typing in conjunction with SM1748P (clone GA2B).</p>
Storage:	<p>Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.</p> <p>Shelf life: one year from despatch.</p>
General Readings:	<ol style="list-style-type: none">Herold S, von Wulffen W, Steinmueller M, Pleschka S, Kuziel WA, Mack M, et al. Alveolar epithelial cells direct monocyte transepithelial migration upon influenza virus infection: impact of chemokines and adhesion molecules. J Immunol. 2006 Aug 1;177(3):1817-24. PubMed PMID: 16849492.Ehrhardt C, Wolff T, Pleschka S, Planz O, Beermann W, Bode JG, et al. Influenza A virus

- NS1 protein activates the PI3K/Akt pathway to mediate antiapoptotic signaling responses. *J Virol.* 2007 Apr;81(7):3058-67. Epub 2007 Jan 17. PubMed PMID: 17229704.
3. Ehrhardt C, Wolff T, Ludwig S. Activation of phosphatidylinositol 3-kinase signaling by the nonstructural NS1 protein is not conserved among type A and B influenza viruses. *J Virol.* 2007 Nov;81(21):12097-100. Epub 2007 Aug 22. PubMed PMID: 17715214.
4. Matarrese P, Nencioni L, Checconi P, Ciarlo L, Gambardella L, Ascione B, et al. Pepstatin A alters host cell autophagic machinery and leads to a decrease in influenza A virus production. *J Cell Physiol.* 2011 Dec;226(12):3368-77. doi: 10.1002/jcp.22696. PubMed PMID: 21344392.
5. Nencioni L, De Chiara G, Sgarbanti R, Amatore D, Aquilano K, Marcocci ME, et al. Bcl-2 expression and p38MAPK activity in cells infected with influenza A virus: impact on virally induced apoptosis and viral replication. *J Biol Chem.* 2009 Jun 5;284(23):16004-15. doi: 10.1074/jbc.M900146200. Epub 2009 Mar 31. PubMed PMID: 19336399.
6. Pauli EK, Schmolke M, Wolff T, Viemann D, Roth J, Bode JG, et al. Influenza A virus inhibits type I IFN signaling via NF-kappaB-dependent induction of SOCS-3 expression. *PLoS Pathog.* 2008 Nov;4(11):e1000196. doi: 10.1371/journal.ppat.1000196. Epub 2008 Nov 7. PubMed PMID: 18989459.
7. Jamali A, Sabahi F, Bamdad T, Hashemi H, Mahboudi F, Kheiri MT. A DNA vaccine-encoded nucleoprotein of influenza virus fails to induce cellular immune responses in a diabetic mouse model. *Clin Vaccine Immunol.* 2010 Apr;17(4):683-7. doi: 10.1128/CVI.00445-09. Epub 2010 Feb 17. PubMed PMID: 20164252.
8. Ehrhardt C, Hrinčius ER, Korte V, Mazur I, Droebner K, Poetter A, et al. A polyphenol rich plant extract, CYSTUS052, exerts anti influenza virus activity in cell culture without toxic side effects or the tendency to induce viral resistance. *Antiviral Res.* 2007 Oct;76(1):38-47. Epub 2007 Jun 4. PubMed PMID: 17572513.
9. Seitz C, Frensing T, Höper D, Kochs G, Reichl U. High yields of influenza A virus in Madin-Darby canine kidney cells are promoted by an insufficient interferon-induced antiviral state. *J Gen Virol.* 2010 Jul;91(Pt 7):1754-63. doi: 10.1099/vir.0.020370-0. Epub 2010 Mar 31. PubMed PMID: 20357039.
10. Gabay, C. et al. (2011) Impact of synthetic and biological disease modifying antirheumatic drugs on antibody responses to the AS03-adjuvanted pandemic influenza vaccine. *Arthritis Rheum.* Mar 7.. [Epub ahead of print]