

Datasheet: MCA401 BATCH NUMBER 150420

Description:	MOUSE ANTI INFLUENZA A MATRIX PROTEIN
Specificity:	INFLUENZA A MATRIX PROTEIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	GA2B
Isotype:	lgG1
Quantity:	1 mg

Product Details

Applications	This product has been reported to work in the following applications. This information is						
	derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further						
	information. For general	orotocol r	ecommer	dations. please visit w	ww.bio-		
	rad-antibodies.com/protocols						
		Yes	No	Not Determined	Suggested Dilution		
	Flow Cytometry			•			
	Immunohistology - Frozen			•			
	Immunohistology - Paraffin	-					
	ELISA			•			
	Immunoprecipitation			•			
	Western Blotting	-					
	Immunofluorescence	-			1/100		
	Where this antibody has not been tested for use in a particular technique this does not						
	necessarily exclude its use in such procedures. Suggested working dilutions are given as						
	a guide only. It is recommended that the user titrates the antibody for use in their own						
	system using appropriate negative/positive controls						
	oyotom doing appropriate	noganio	, poolaro				
Target Species	Viral						
Product Form	Purified IgG - liquid						
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant.						
Buffer Solution	Phosphate buffered salin	e					
Preservative Stabilisers	0.09% Sodium Azide						

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml				
Immunogen	Influenza A / Puerto Rico / 8 / 34 (H1N1) and A/Bangkok / 1 / 79 (H3N2) viruses.				
External Database Links	UniProt:P03485Related reagentsP03487Related reagentsEntrez Gene:956527M1Related reagents				
RRID	AB_322157				
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the P3 Ag8.653 mouse myeloma cell line.				
Specificity	Mouse anti Influenza A matrix protein 1 antibody, clone GA2B recognizes an epitope within the influenza A matrix protein 1. In both strains of virus used as immunogen to isolate clone GA2B, the matrix protein 1 is a 252 amino acid, highly conserved viral protein playing a crucial role in replication. Mouse anti Influenza A matrix protein 1 antibody, clone GA2B can be used in influenza A IFA typing in conjunction with Mouse anti Influenza A matrix protein, clone AA5H.				
Purity	>90% IgG content as established by SDS PAGE				
References	 Latham, T. & Galarza, J.M. (2001) Formation of wild-type and chimeric influenza virus-like particles following simultaneous expression of only four structural proteins. J <u>Virol. 75 (13): 6154-65.</u> Zhirnov, O.P. & Klenk, H.D. (1997) Histones as a target for influenza virus matrix protein M1. <u>Virology. 235 (2): 302-10.</u> Viemann, D. <i>et al.</i> (2011) H5N1 virus activates signaling pathways in human endothelial cells resulting in a specific imbalanced inflammatory response. <u>J Immunol. 186 (1): 164-73.</u> Yamamoto, Y. <i>et al.</i> (2008) Avian influenza virus (H5N1) replication in feathers of domestic waterfowl. <u>Emerg Infect Dis. 14: 149-51.</u> Doucet, J.D. <i>et al.</i> (2011) Endogenously expressed matrix protein M1 and nucleoprotein of influenza A are efficiently presented by class I and class II major histocompatibility complexes. <u>J Gen Virol. 92 (Pt 5): 1162-71.</u> Tanimura N <i>et al.</i> (2006) Pathology of fatal highly pathogenic H5N1 avian influenza virus infection in large-billed crows (<i>Corvus macrorhynchos</i>) during the 2004 outbreak in Japan. <u>Vet Pathol. 43 (4): 500-9.</u> Kirkeby, S. <i>et al.</i> (2009) Infection with human H1N1 influenza virus affects the expression of sialic acids of metaplastic mucous cells in the ferret airways. <u>Virus Res. 144: 225-32.</u> Pauli, E.K. <i>et al.</i> (2008) Influenza A virus inhibits type I IFN signaling via NF-kappaB- 				

dependent induction of SOCS-3 expression. PLoS Pathog. 4(11): e1000196.

9. Eierhoff, T. *et al.* (2010) The epidermal growth factor receptor (EGFR) promotes uptake of influenza A viruses (IAV) into host cells. <u>PLoS Pathog. 6. pii: e1001099.</u>

10. Wang, D. *et al.* (2010) The lack of an inherent membrane targeting signal is responsible for the failure of the matrix (M1) protein of influenza A virus to bud into virus-like particles. <u>J Virol. 84: 4673-81.</u>

11. Kang, S.M. *et al.* (2009) Induction of long-term protective immune responses by influenza H5N1 virus-like particles. <u>PLoS One. 4: e4667.</u>

12. Luig, C. *et al.* (2010) MAP kinase-activated protein kinases 2 and 3 are required for influenza A virus propagation and act via inhibition of PKR. <u>FASEB J. 24: 4068-77.</u>

13. Schmolke, M. *et al.* (2009) Essential impact of NF-kappaB signaling on the H5N1 influenza A virus-induced transcriptome. J Immunol. 183: 5180-9.

14. Reinhardt, J. and Wolff, T. (2000) The influenza A virus M1 protein interacts with the cellular receptor of activated C kinase (RACK) 1 and can be phosphorylated by protein kinase C. <u>Vet Microbiol. 74: 87-100.</u>

15. Das, S.C. *et al.* (2012) The Highly Conserved Arginine Residues at Positions 76 through 78 of Influenza A Virus Matrix Protein M1 Play an Important Role in Viral Replication by Affecting the Intracellular Localization of M1. J Virol. 86: 1522-30.

16. Liu, Y.V. *et al.* (2011) Chimeric severe acute respiratory syndrome coronavirus (SARS-CoV) S glycoprotein and influenza matrix 1 efficiently form virus-like particles (VLPs) that protect mice against challenge with SARS-CoV. <u>Vaccine. 29: 6606-13.</u>

17. Moncorgé, O. *et al.* (2013) Investigation of influenza virus polymerase activity in pig cells. J Virol. 87 (1): 384-94.

18. Khaperskyy, D.A. *et al.* (2012) Influenza A virus inhibits cytoplasmic stress granule formation. <u>FASEB J. 26: 1629-39.</u>

19. Friesenhagen, J. *et al.* (2012) Highly pathogenic avian influenza viruses inhibit effective immune responses of human blood-derived macrophages. <u>J Leukoc Biol. 92:</u> <u>11-20.</u>

20. Londrigan, S.L. *et al.* (2015) Infection of Mouse Macrophages by Seasonal Influenza Viruses Can Be Restricted at the Level of Virus Entry and at a Late Stage in the Virus Life Cycle. J Virol. 89 (24): 12319-29.

21. Sadewasser, A. *et al.* (2017) Quantitative proteomic approach identifies Vpr binding protein as novel host factor supporting influenza A virus infections in human cells. <u>Mol Cell</u> <u>Proteomics. Mar 13. pii: mcp.M116.065904. doi: 10.1074/mcp.M116.065904. [Epub ahead of print]</u>

22. Liu, Y.V. *et al.* (2015) Recombinant virus-like particles elicit protective immunity against avian influenza A(H7N9) virus infection in ferrets. <u>Vaccine. 33 (18): 2152-8.</u>

23. Herrmann, V.L. *et al.* (2015) Cytotoxic T cell vaccination with PLGA microspheres interferes with influenza A virus replication in the lung and suppresses the infectious disease. <u>J Control Release. 216: 121-31.</u>

24. Huang, M.T. *et al.* (2015) DcR3 suppresses influenza virus-induced macrophage activation and attenuates pulmonary inflammation and lethality. <u>J Mol Med (Berl). 93 (10):</u> <u>1131-43.</u>

25. Al-Mubarak, F. *et al.* (2015) Identification of morphological differences between avian influenza A viruses grown in chicken and duck cells. <u>Virus Res. 199: 9-19.</u>

26. Yang, C.H. *et al.* (2017) Influenza A virus upregulates PRPF8 gene expression to increase virus production. <u>Arch Virol. 162 (5): 1223-35.</u>

	 27. Smith, G.E. <i>et al.</i> (2017) Neuraminidase-based recombinant virus-like particles protect against lethal avian influenza A(H5N1) virus infection in ferrets. <u>Virology. 509: 90-97.</u> 28. Usui, T. <i>et al.</i> (2020) Outbreaks of highly pathogenic avian influenza in zoo birds caused by HA clade 2.3.4.4 H5N6 subtype viruses in Japan in winter 2016. <u>Transbound Emerg Dis. 67 (2): 686-697.</u>
Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA401 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Ar	nti Mouse IgG (STAR12)	RPE				
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>						
Goat Anti	Mouse IgG (STAR76)	RPE				
Goat Anti	Mouse IgG (STAR70)	<u>FITC</u>				
Goat Anti	Mouse IgG (H/L) (STAR117)	.) <u>Alk. Phos.</u> , <u>DyLight®488</u> , <u>DyLight®550</u> ,				
		DyL	ight®650, DyLight®680, D	DyLight®800	,	
		FIT(<u>C, HRP</u>			
Rabbit Ar	nti Mouse IgG (STAR9)	<u>FIT</u>	<u>2</u>			
Goat Anti Mouse IgG (STAR77)		HRP				
Goat Anti Mouse IgG (Fc) (STAR120)		FITC, HRP				
Rabbit Ar	nti Mouse IgG (STAR13)	HR	2			
North & South America	Tel: +1 800 265 7376 Worldwid Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	de	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.	Europe com	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com	

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M367655:200529'

Printed on 05 Feb 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint