

## Datasheet: MCA490 BATCH NUMBER 163453

Description:	MOUSE ANTI RESPIRATORY SYNCYTIAL VIRUS FUSION PROTEIN		
Specificity:	RESPIRATORY SYNCYTIAL VIRUS FUSION PROTEIN		
Other names:	RSV		
Format:	Purified		
Product Type:	Monoclonal Antibody		
Clone:	RSV3216 (B016)		
Isotype:	lgG2b		
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 protocol recommendations, please visit <u>www.bio-rad-antibodies.com/protocols</u>.

	Yes	No	Not Dotormined	Suggested Dilution
	res	No	Not Determined	Suggested Dilution
Flow Cytometry				
Immunohistology - Frozen			•	
Immunohistology - Paraffin			•	
ELISA (1)	•			
Immunoprecipitation	-			
Western Blotting	•			
Immunofluorescence	•			
Immuno-electron				
Microscopy	-			
Where this antibody has	not been	tested for	or use in a particular teo	chnique this does not
necessarily exclude its us	se in suc	h procedi	ures. It is recommende	d that the user titrates
the antibody for use in the	eir own s	ystem us	ing appropriate negativ	/e/positive controls.
(1)Suitable as capture r	eagent v	vith MCA	491 as detection reag	gent in sandwich
ELISA (See Adams et a	<i>I.</i> 2010 fo	or details	5).	

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 saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN <sub>3</sub> )
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Bovine RSV strains: 127, SNK and 9007. Human RSV strains: Long, Randall, 8/60, and A/2.
RRID	AB_2231368
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	Mouse anti respiratory syncytial virus fusion protein antibody, clone RSV3216 recognizes an epitope within the RSV fusion protein (46 kDa and 22 kDa s-s linked glycoprotein).
	Mouse anti respiratory syncytial virus fusion protein antibody, clone RSV3216 can be used in immunofluorescence assays in conjunction with <u>MCA491G</u> (clone RSV3132).
Purity	>90% IgG
References	<ol> <li>Mason, S.W. <i>et al.</i> (2004) Polyadenylation-dependent screening assay for respiratory syncytial virus RNA transcriptase activity and identification of an inhibitor. <u>Nucleic Acids Res. 32 (16): 4758-67.</u></li> <li>Adams, O. <i>et al.</i> (2010) Palivizumab-resistant human respiratory syncytial virus infection in infancy. <u>Clin Infect Dis. 2010 Jul 15;51(2):185-8.</u></li> <li>Eckardt-Michel, J. <i>et al.</i> (2008) The fusion protein of respiratory syncytial virus triggers p53-dependent apoptosis. <u>J Virol. 82: 3236-49.</u></li> <li>Kolokoltsov, A.A. <i>et al.</i> (2007) Small interfering RNA profiling reveals key role of clathrin-mediated endocytosis and early endosome formation for infection by respiratory syncytial virus. <u>J Virol. 81: 7786-800.</u></li> <li>Riffault, S. <i>et al.</i> (2006) Replication of bovine respiratory syncytial virus in murine cells depends on type I interferon-receptor functionality. <u>J Gen Virol. 87: 2145-8.</u></li> <li>Schlender, J. <i>et al.</i> (2003) Inhibition of toll-like receptor 7- and 9-mediated alpha/beta interferon production in human plasmacytoid dendritic cells by respiratory syncytial virus and measles virus. <u>J Virol. 79 (9): 5507-15.</u></li> <li>Schlender, J. <i>et al.</i> (2005) A chimeric respiratory syncytial virus fusion protein subunit F2, not attachment protein G, determines the specificity of RSV infection. <u>J Virol. 77: 4609-16.</u></li> <li>Zimmer, G. <i>et al.</i> (2003) Virokinin, a bioactive peptide of the tachykinin family, is released from the fusion protein of bovine respiratory syncytial virus. <u>J Virol. 79: 10467-77.</u></li> <li>Zimmer, G. <i>et al.</i> (2010) A new subunit vaccine based on nucleoprotein nanoparticles</li> </ol>

	confers partial clinical and virological protection in calves against bovine respiratory
	syncytial virus. <u>Vaccine. 28: 3722-34.</u>
	11. Yunus, A. et al. (2010) Elevated temperature triggers human respiratory syncytial virus
	F protein six-helix bundle formation. <u>Virology. 396: 226-37.</u>
	12. Zimmer, G. et al. (2002) Cleavage at the furin consensus sequence RAR/KR(109) and
	presence of the intervening peptide of the respiratory syncytial virus fusion protein are
	dispensable for virus replication in cell culture. J Virol. 76 (18): 9218-24.
	13. Adams, O. et al. (2013) Genetic analysis and antigenic characterization of human
	respiratory syncytial virus group A viruses isolated in Germany 1996-2008. <u>Virus Genes.</u> <u>47 (2): 210-8.</u>
	14. Zimmer, G. et al. (2001) Proteolytic activation of respiratory syncytial virus fusion
	protein. Cleavage at two furin consensus sequences. <u>J Biol Chem. 276 (34): 31642-50.</u>
	15. Zimmer, G. et al. (2001) N-glycans of F protein differentially affect fusion activity of
	human respiratory syncytial virus. <u>J Virol. 75 (10): 4744-51.</u>
	16. Shaw, C.A. <i>et al.</i> (2013) The role of non-viral antigens in the cotton rat model of
	respiratory syncytial virus vaccine-enhanced disease. Vaccine. 31 (2): 306-12.
	17. Sandhu, J.S. et al. (2000) Oral immunization of mice with transgenic tomato fruit
	expressing respiratory syncytial virus-F protein induces a systemic immune response.
	Transgenic Res. 9 (2): 127-35.
	18. Hägglund S et al. (2014) Characterization of an experimental vaccine for bovine
	respiratory syncytial virus. <u>Clin Vaccine Immunol. 21 (7): 997-1004.</u>
	19. Hervé, P.L. et al. (2016) RSV N-nanorings fused to palivizumab-targeted neutralizing
	epitope as a nanoparticle RSV vaccine. Nanomedicine. Aug 20. pii:
	S1549-9634(16)30114-9. [Epub ahead of print]
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	with lipid rafts without a requirement for other virus proteins. J Virol. 80 (24): 12160-70.
	21. Wong TM <i>et al.</i> (2014) Respiratory syncytial virus (RSV) infection in elderly mice
	results in altered antiviral gene expression and enhanced pathology. PLoS One. 9 (2):
	e88764.
	22. Bird, G.H. <i>et al.</i> (2014) Mucosal delivery of a double-stapled RSV peptide prevents
	nasopulmonary infection. J Clin Invest. 124 (5): 2113-24.
	23. Sampayo-Escobar, V. <i>et al.</i> (2018) Osteopontin plays a pivotal role in increasing
	severity of respiratory syncytial virus infection. PLoS One. 13 (4): e0192709.
	24. Koskinen, J.M. <i>et al.</i> (2021) Clinical validation of automated and rapid mariPOC
	SARS-CoV-2 antigen test. <u>Sci Rep. 11 (1): 20363.</u>
Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at
0.0.0.90	-20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for
	short term use (up to 4 weeks) and store the remaining aliquots at -20°C.
	Avoid repeated freezing and thawing as this may denature the antibody. Storage in
	frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety	Material Safety Datasheet documentation #10040 available at:
Information	https://www.bio-rad-antibodies.com/SDS/MCA490 10040

Regulato	ry	For research purp	oses	only		
Relate	d Products	3				
Recomn	nended Seco	ondary Antibod	lies			
Rabbit A	nti Mouse IgG	(STAR12)	RPI	-		
Goat Ant	i Mouse IgG lợ	gA IgM (STAR87	) <u>HR</u>			
Goat Ant	i Mouse IgG (\$	STAR76)	RPI			
Rabbit Ar	nti Mouse IgG	(STAR13)	HR			
Goat Ant	i Mouse IgG (\$	STAR70)	FIT	<u>C</u>		
Goat Ant	i Mouse IgG (I	H/L) (STAR117)	<u>Alk</u>	Phos., DyLight®488,	DyLight®550,	
			DyL	ight®650, DyLight®68	0, DyLight®80	<u>0</u> ,
			<u>FIT</u>	<u>C, HRP</u>		
Rabbit Ar	nti Mouse IgG	(STAR9)	FIT	<u>C</u>		
Goat Ant	i Mouse IgG (\$	STAR77)	HR			
Goat Ant	i Mouse IgG (I	Fc) (STAR120)	FIT	<u>C, HRP</u>		
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To find a b	atch/lot specific	datasheet for this	produc	t, please use our online 'M395766:220519'	search tool at: b	io-rad-antibodies.com/datashee
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