

## Datasheet: MCA490

<b>Description:</b>	MOUSE ANTI RESPIRATORY SYNCYTIAL VIRUS FUSION PROTEIN
<b>Specificity:</b>	RESPIRATORY SYNCYTIAL VIRUS FUSION PROTEIN
<b>Other names:</b>	RSV
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RSV3216 (B016)
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	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 use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1)Suitable as capture reagent with MCA491 as detection reagent in sandwich ELISA (See [Adams et al. 2010](#) for details).**

<b>Target Species</b>	Viral
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on protein A from tissue culture supernatant.
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Bovine RSV strains: 127, SNK and 9007. Human RSV strains: Long, Randall, 8/60, and A/2.
<b>RRID</b>	AB_2231368
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti respiratory syncytial virus fusion protein antibody, clone RSV3216</b> recognizes an epitope within the RSV fusion protein (46 kDa and 22 kDa s-s linked glycoprotein).</p> <p>Mouse anti respiratory syncytial virus fusion protein antibody, clone RSV3216 can be used in immunofluorescence assays in conjunction with <a href="#">MCA491G</a> (clone RSV3132).</p>
<b>Purity</b>	>90% IgG
<b>References</b>	<ol style="list-style-type: none"> <li>1. Mason, S.W. <i>et al.</i> (2004) Polyadenylation-dependent screening assay for respiratory syncytial virus RNA transcriptase activity and identification of an inhibitor. <a href="#">Nucleic Acids Res. 32 (16): 4758-67.</a></li> <li>2. Adams, O. <i>et al.</i> (2010) Palivizumab-resistant human respiratory syncytial virus infection in infancy. <a href="#">Clin Infect Dis. 2010 Jul 15;51(2):185-8.</a></li> <li>3. Eckardt-Michel, J. <i>et al.</i> (2008) The fusion protein of respiratory syncytial virus triggers p53-dependent apoptosis. <a href="#">J Virol. 82: 3236-49.</a></li> <li>4. 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. <a href="#">J Virol. 81: 7786-800.</a></li> <li>5. Riffault, S. <i>et al.</i> (2006) Replication of bovine respiratory syncytial virus in murine cells depends on type I interferon-receptor functionality. <a href="#">J Gen Virol. 87: 2145-8.</a></li> <li>6. Schlender, J. <i>et al.</i> (2005) 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. <a href="#">J Virol. 79 (9): 5507-15.</a></li> <li>7. Schlender, J. <i>et al.</i> (2003) Respiratory syncytial virus (RSV) fusion protein subunit F2, not attachment protein G, determines the specificity of RSV infection. <a href="#">J Virol. 77: 4609-16.</a></li> <li>8. Zimmer, G. <i>et al.</i> (2005) A chimeric respiratory syncytial virus fusion protein functionally replaces the F and HN glycoproteins in recombinant Sendai virus. <a href="#">J Virol. 79: 10467-77.</a></li> <li>9. 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. <a href="#">J Biol Chem. 278: 46854-61.</a></li> <li>10. Riffault, S. <i>et al.</i> (2010) A new subunit vaccine based on nucleoprotein nanoparticles confers partial clinical and virological protection in calves against bovine respiratory syncytial virus. <a href="#">Vaccine. 28: 3722-34.</a></li> </ol>

11. Yunus, A. *et al.* (2010) Elevated temperature triggers human respiratory syncytial virus F protein six-helix bundle formation. [Virology. 396: 226-37.](#)
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. [Virus Genes. 47 \(2\): 210-8.](#)
14. Zimmer, G. *et al.* (2001) Proteolytic activation of respiratory syncytial virus fusion protein. Cleavage at two furin consensus sequences. [J Biol Chem. 276 \(34\): 31642-50.](#)
15. Zimmer, G. *et al.* (2001) N-glycans of F protein differentially affect fusion activity of human respiratory syncytial virus. [J Virol. 75 \(10\): 4744-51.](#)
16. Shaw, C.A. *et al.* (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. [Clin Vaccine Immunol. 21 \(7\): 997-1004.](#)
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. \[Epub ahead of print\]](#)
20. Fleming, E.H. *et al.* (2006) Respiratory syncytial virus F envelope protein associates with lipid rafts without a requirement for other virus proteins. [J Virol. 80 \(24\): 12160-70.](#)
21. Wong TM *et al.* (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. *et al.* (2014) Mucosal delivery of a double-stapled RSV peptide prevents nasopulmonary infection. [J Clin Invest. 124 \(5\): 2113-24.](#)
23. Sampayo-Escobar, V. *et al.* (2018) Osteopontin plays a pivotal role in increasing severity of respiratory syncytial virus infection. [PLoS One. 13 \(4\): e0192709.](#)
24. Koskinen, J.M. *et al.* (2021) Clinical validation of automated and rapid mariPOC SARS-CoV-2 antigen test. [Sci Rep. 11 \(1\): 20363.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

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