

# Datasheet: MCA1965GA

**BATCH NUMBER 166444**

<b>Description:</b>	MOUSE ANTI HUMAN CD91
<b>Specificity:</b>	CD91
<b>Other names:</b>	ALPHA-2 MACROGLOBULIN RECEPTOR
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	A2Mr alpha-2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 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	▪			1/50 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			Direct
Immunoprecipitation	▪			
Western Blotting	▪			Non-reducing conditions

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<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>	0.09% sodium azide (NaN <sub>3</sub> )

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Purified alpha2 macroglobulin receptor
External Database Links	<p><b>UniProt:</b>  <a href="#">Q07954</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">4035</a>    LRP1    <a href="#">Related reagents</a></p>
Synonyms	A2MR, APR
RRID	AB_323544
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 mouse myeloma cell line.
Specificity	<p><b>Mouse anti Human CD91 antibody, clone A2Mr alpha-2</b> recognizes human CD91, also known as Prolow-density lipoprotein receptor-related protein 1, Alpha-2-macroglobulin receptor or apolipoprotein E receptor. CD91 is a 4525 amino acid protein post translationally cleaved into 3 subunits, a 85 kDa type I transmembrane carboxyl chain (LRP85) non-covalently bound to a 515 kDa extracellular N-terminal subunit (LRP515)containing multiple <a href="#">EGF-like</a> and LDL-receptor <a href="#">Class A</a> and <a href="#">Class B</a> domains. Additionally, there is an intracellular domain (LRPICD) which can be cleaved from the transmambrane domain by gamma secretase (<a href="#">May et al. 2004</a>). Clone A2Mr alpha-2 detects an epitope within the LRP515 chain.</p> <p>CD91 is a multifunctional protein involved in processes including the phagocytosis and endocytosis of apoptotic cells (<a href="#">Nilsson et al. 2012</a>), clearance of activated serum alpha-2-macroglobulin (<a href="#">Kristensen et al. 1990</a>), modulation of the inflammatory response (<a href="#">Staudt et al. 2013</a>) and acts as a receptor for <i>Pseudomonas aeruginosa</i> exotoxin A (<a href="#">Kounnas et al. 1992</a>).</p> <p>Mouse anti Human CD91, clone A2Mr alpha-2 has been used extensively for the detection of CD91 by flow cytometry and immunohistochemistry on formalin fixed paraffin embedded tissues (<a href="#">Bourazopoulou et al. 2009</a>).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
Histology Positive Control Tissue	Human liver
References	1. Moestrup, S.K. <i>et al.</i> (1992) Distribution of the alpha 2-macroglobulin receptor/low density lipoprotein receptor-related protein in human tissues. <a href="#">Cell Tissue Res. 269 (3): 375-82.</a>

2. Moestrup, S.K. & Hokland, P. (1992) Surface expression of the alpha 2-macroglobulin receptor on human malignant blood cells. [Leuk Res. 16 \(3\): 227-34.](#)
3. Hvidberg, V. *et al.* (2005) Identification of the receptor scavenging hemopexin-heme complexes. [Blood. 106: 2572-9.](#)
4. Hodge, S. *et al.* (2006) Azithromycin increases phagocytosis of apoptotic bronchial epithelial cells by alveolar macrophages. [Eur Respir J. 28 \(3\): 486-95.](#)
5. Hodge, S. *et al.* (2007) Smoking alters alveolar macrophage recognition and phagocytic ability: implications in chronic obstructive pulmonary disease. [Am J Respir Cell Mol Biol. 37: 748-55.](#)
6. Pawluczyk, I.Z. *et al.* (2008) Perindoprilat modulates the activity of lipoprotein receptor-related protein in human mesangial cells. [J Biol Chem. 283: 4588-94.](#)
7. Bourazopoulou, E. *et al.* (2009) Functional expression of the alpha 2-macroglobulin receptor CD91 in salivary gland epithelial cells. [J Autoimmun. 33: 141-6.](#)
8. Chen, J.S. *et al.* (2010) Secreted Heat Shock Protein 90{alpha} Induces Colorectal Cancer Cell Invasion through CD91/LRP-1 and NF- $\kappa$ B-mediated Integrin {alpha}V Expression. [J Biol Chem. 285: 25458-66.](#)
9. Cunningham, A.J. *et al.* (2012) Prolonged neutrophil dysfunction after *Plasmodium falciparum* malaria is related to hemolysis and heme oxygenase-1 induction. [J Immunol. 189 \(11\): 5336-46.](#)
10. Huerta, V. *et al.* (2020) The low-density lipoprotein receptor-related protein-1 is essential for Dengue virus infection [bioRxiv 10 Jun \[Epub ahead of print\].](#)

<b>Storage</b>	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1965GA">https://www.bio-rad-antibodies.com/SDS/MCA1965GA</a></p> <p>10040</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<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>

Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
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