

## Datasheet: MCA1965

<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>	0.2 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	▪			
Immunoprecipitation	▪			
Western Blotting (1)	▪			
Immunofluorescence	▪			

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.

(1)**A2Mr alpha-2 recognizes CD91 under non-reducing conditions.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml

<b>Immunogen</b>	Purified alpha2 macroglobulin receptor
<b>External Database Links</b>	<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>
<b>Synonyms</b>	A2MR, APR
<b>Fusion Partners</b>	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 mouse myeloma cell line.
<b>Specificity</b>	<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 transmembrane 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>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>Histology Positive Control Tissue</b>	Liver
<b>References</b>	<ol style="list-style-type: none"> <li>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></li> <li>2. Moestrup, S.K. &amp; Hokland, P. (1992) Surface expression of the alpha 2-macroglobulin receptor on human malignant blood cells. <a href="#">Leuk Res. 16 (3): 227-34.</a></li> <li>3. Chen, J.S. <i>et al.</i> (2010) Secreted Heat Shock Protein 90{alpha} Induces Colorectal Cancer Cell Invasion through CD91/LRP-1 and NF-<math>\kappa</math>B-mediated Integrin <math>\alpha</math>V Expression. <a href="#">J Biol Chem. 285: 25458-66.</a></li> <li>4. Bourazopoulou, E. <i>et al.</i> (2009) Functional expression of the alpha 2-macroglobulin receptor CD91 in salivary gland epithelial cells. <a href="#">J Autoimmun. 33: 141-6.</a></li> <li>5. Hvidberg, V. <i>et al.</i> (2005) Identification of the receptor scavenging hemopexin-heme complexes. <a href="#">Blood. 106: 2572-9.</a></li> <li>6. Hodge, S. <i>et al.</i> (2006) Azithromycin increases phagocytosis of apoptotic bronchial epithelial cells by alveolar macrophages. <a href="#">Eur Respir J. 28 (3): 486-95.</a></li> <li>7. Hodge, S. <i>et al.</i> (2007) Smoking alters alveolar macrophage recognition and phagocytic ability: implications in chronic obstructive pulmonary disease. <a href="#">Am J Respir Cell Mol Biol. 37: 748-55.</a></li> <li>8. Pawluczyk, I.Z. <i>et al.</i> (2008) Perindoprilat modulates the activity of lipoprotein receptor-related</li> </ol>

protein in human mesangial cells. [J Biol Chem. 283: 4588-94.](#)

9. Cunnington, 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. Inage, E. *et al.* (2014) Critical Roles for PU.1, GATA1, and GATA2 in the expression of human FcεRI on mast cells: PU.1 and GATA1 transactivate FCER1A, and GATA2 transactivates FCER1A and MS4A2. [J Immunol. 192 \(8\): 3936-46.](#)

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**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.

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**Shelf Life** 18 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 (STAR76...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),  
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Human Anti Mouse IgG1 (HCA036...) [HRP](#)

### Recommended Negative Controls

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

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