

## Datasheet: MCA1965GA

<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 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.

<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

**External Database  
Links**

**UniProt:**

[Q07954](#)   [Related reagents](#)

**Entrez Gene:**

[4035](#)   LRP1   [Related reagents](#)

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**Synonyms**

A2MR, APR

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**Fusion Partners**

Spleen cells from immunised Balb/c mice were fused with cells of the NS1 mouse myeloma cell line.

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**Specificity**

**Mouse anti Human CD91 antibody, clone A2Mr alpha-2** 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 [EGF-like](#) and LDL-receptor [Class A](#) and [Class B](#) domains. Additionally, there is an intracellular domain (LRPICD) which can be cleaved from the transmembrane domain by gamma secretase ([May et al. 2004](#)). Clone A2Mr alpha-2 detects an epitope within the LRP515 chain.

CD91 is a multifunctional protein involved in processes including the phagocytosis and endocytosis of apoptotic cells ([Nilsson et al. 2012](#)), clearance of activated serum alpha-2-macroglobulin ([Kristensen et al. 1990](#)), modulation of the inflammatory response ([Staudt et al. 2013](#)) and acts as a receptor for *Pseudomonas aeruginosa* exotoxin A ([Kounnas et al. 1992](#)).

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 ([Bourazopoulou et al. 2009](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

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**Histology Positive  
Control Tissue**

Liver

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**References**

1. Moestrup, S.K. *et al.* (1992) Distribution of the alpha 2-macroglobulin receptor/low density lipoprotein receptor-related protein in human tissues. [Cell Tissue Res. 269 \(3\): 375-82.](#)
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. 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.](#)
4. Bourazopoulou, E. *et al.* (2009) Functional expression of the alpha 2-macroglobulin receptor CD91 in salivary gland epithelial cells. [J Autoimmun. 33: 141-6.](#)
5. Hvidberg, V. *et al.* (2005) Identification of the receptor scavenging hemopexin-heme complexes. [Blood. 106: 2572-9.](#)
6. Hodge, S. *et al.* (2006) Azithromycin increases phagocytosis of apoptotic bronchial epithelial cells by alveolar macrophages. [Eur Respir J. 28 \(3\): 486-95.](#)
7. 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.](#)
8. 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.](#)
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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