

## 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 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.

**(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 A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )

## Stabilisers

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Carrier Free Yes

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Approx. Protein Concentrations IgG concentration 1.0mg/ml

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Immunogen Purified alpha2 macroglobulin receptor

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## External Database Links

### UniProt:

[Q07954](#) [Related reagents](#)

### Entrez Gene:

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

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Synonyms A2MR, APR

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RRID AB\_323265

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

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Histology Positive Control Tissue Human 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. 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. 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.](#)

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<b>Storage</b>	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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1965">https://www.bio-rad-antibodies.com/SDS/MCA1965</a> 10040
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<b>Regulatory</b>	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 IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

## Recommended Negative Controls

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

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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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