

Datasheet: MCA1965XZ

Description:	MOUSE ANTI HUMAN CD91:Preservative Free
Specificity:	CD91
Other names:	ALPHA-2 MACROGLOBULIN RECEPTOR
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	A2Mr alpha-2
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			1/50 1/100
Immunohistology - Frozen	■			
Immunohistology - Paraffin			■	
ELISA	■			Direct
Immunoprecipitation	■			
Western Blotting (1)	■			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.

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

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Purified alpha2 macroglobulin receptor

**External Database
Links**

UniProt:

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

Entrez Gene:

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

Synonyms

A2MR, APR

Fusion Partners

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

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](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

**Histology Positive
Control Tissue**

Liver

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. 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. 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.](#)

Storage	Store at -20°C only. 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.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
Regulatory	For research purposes only

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 \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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