

Datasheet: MCA1965

BATCH NUMBER 163034

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

	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.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Purified alpha2 macroglobulin receptor
External Database Links	<p>UniProt: Q07954 Related reagents</p> <p>Entrez Gene: 4035 LRP1 Related reagents</p>
Synonyms	A2MR, APR
RRID	AB_323265
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 mouse myeloma cell line.
Specificity	<p>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.</p> <p>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 <i>Pseudomonas aeruginosa</i> exotoxin A (Kounnas et al. 1992).</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 (Bourazopoulou et al. 2009).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ 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- κ 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 Fc ϵ RI on mast cells: PU.1 and GATA1 transactivate FCER1A, and GATA2 transactivates FCER1A and MS4A2. [J Immunol. 192 \(8\): 3936-46.](#)

Storage

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.

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

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1965>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
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 \(MCA928\)](#)

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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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