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
RRID	AB_323267
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 transmambrane 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 inluding 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 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-{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.

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.
Guarantee	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 IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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