Datasheet: MCA1965PE

Description:	MOUSE ANTI HUMAN CD91:RPE
Specificity:	CD91
Other names:	ALPHA-2 MACROGLOBULIN RECEPTOR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	A2Mr alpha-2
Isotype:	IgG1
Quantity:	100 TESTS

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	▪			Neat

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.

Target Species

Human

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1.0 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% sodium azide (NaN_3)
1% bovine serum albumin
5% sucrose

Immunogen	Purified alpha2 macroglobulin receptor
External Database Links	**UniProt:** Q07954 Related reagents **Entrez Gene:** 4035 LRP1 Related reagents
Synonyms	A2MR, APR
RRID	AB_323268
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 10µl of the suggested working dilution to label 10^6 cells in 100µl
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.
10. Huerta, V. *et al.* (2020) The low-density lipoprotein receptor-related protein-1 is essential for Dengue virus infection bio&χiv 10 Jun [Epub ahead of print].

Storage	Prior to reconstitution store at +4°C. Following reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1965PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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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
'M419568:230616'

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