

## Datasheet: MCA2518A488

**BATCH NUMBER 161198**

<b>Description:</b>	MOUSE ANTI HUMAN CD172a:Alexa Fluor® 488
<b>Specificity:</b>	CD172a
<b>Other names:</b>	SIRP ALPHA
<b>Format:</b>	ALEXA FLUOR® 488
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	15-414
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/1ml

## 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	▪			Neat - 1/10

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.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 488 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®488	495	519
<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 Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin		
<b>Approx. Protein</b>	IgG concentration 0.05mg/ml		

## Concentrations

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**Immunogen** Monocyte-derived dendritic cells.

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## External Database Links

**UniProt:**

[P78324](#)    [Related reagents](#)

**Entrez Gene:**

[140885](#)    SIRPA    [Related reagents](#)

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**Synonyms** BIT, MFR, MYD1, PTPNS1, SHPS1, SIRP

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**RRID** AB\_2165466

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**Fusion Partners** Spleen cells from immunized Balb/c mice were fused with cells of the X63-Ag8.653 myeloma cell line.

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**Specificity** **Mouse anti Human CD172a antibody, clone 15-414** recognizes human CD172a, also known as signal-regulatory protein alpha, a receptor-type transmembrane glycoprotein expressed on cells of myeloid origin, including granulocytes, dendritic cells (DCs), macrophages, mast cells and haematopoietic stem cells.

CD172a acts as a substrate for several activated tyrosine kinases, including EGFR, PDGFR, src and insulin receptor and is involved in the negative regulation of receptor tyrosine kinase-coupled signaling pathways. Ligand binding of CD172a to integrin-associated protein CD47, results in tyrosine kinase phosphorylation of immunoreceptor tyrosine-based inhibitory motifs (ITIMs) within the cytoplasmic region of CD172a, mediating the recruitment and activation of the tyrosine phosphatases SHP-1 and SHP-2. These then act as regulators of cellular function, through dephosphorylation of specific substrates. Ligation of CD172a with CD47 has been demonstrated in several regulatory processes, including the inhibition of host cell phagocytosis by macrophages and the bi-directional activation of T cells and DCs.

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**Flow Cytometry** Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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**References**

1. Baba, T. *et al.* (2012) Novel Process of Intrathymic Tumor-Immune Tolerance through CCR2-Mediated Recruitment of Sirp $\alpha$ (+) Dendritic Cells: A Murine Model. [PLoS One. 7: e41154.](#)
2. Szaraz, P. *et al.* (2016) In Vitro Differentiation of First Trimester Human Umbilical Cord Perivascular Cells into Contracting Cardiomyocyte-Like Cells. [Stem Cells Int. 2016: 7513252.](#)

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**Further Reading**

1. Fujioka, Y. *et al.* (1996) A novel membrane glycoprotein, SHPS-1, that binds the SH2-domain-containing protein tyrosine phosphatase SHP-2 in response to mitogens and cell adhesion. [Mol Cell Biol. 16 \(12\): 6887-99.](#)
2. van Beek, E.M. *et al.* (2005) Signal regulatory proteins in the immune system. [J Immunol. 175 \(12\): 7781-7.](#)

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**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. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2518A488>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA929A488\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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