

## Datasheet: MCA1053PE

<b>Description:</b>	MOUSE ANTI HUMAN CD48:RPE
<b>Specificity:</b>	CD48
<b>Other names:</b>	BLAST-1
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEM-102
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

#### Target Species

Human

#### Species Cross Reactivity

Reacts with: Rhesus Monkey

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

#### Product Form

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

#### Reconstitution

Reconstitute with 1 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 A from tissue culture supernatant

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	1% bovine serum albumin 5% sucrose
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P09326</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">962</a>    CD48    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	BCM1, BLAST1
<b>RRID</b>	AB_324307
<b>Specificity</b>	<p><b>Mouse anti Human CD48 antibody, clone MEM-102</b> recognizes human CD48, also known as B-lymphocyte activation marker BLAST-1, BCM1 surface antigen, Leukocyte antigen MEM-102, SLAM family member 2 or Signaling lymphocytic activation molecule 2. CD 48, as a mature molecule is a 193 amino acid, ~45 kDa cell membrane glycoprotein containing 2 Ig-like domains.</p> <p>CD48 acts as a counter-receptor for CD2 (<a href="#">Kato et al. 1992</a>) and is involved in immune regulation and tolerance (<a href="#">McArdel et al. 2016</a>)</p> <p>Mouse anti Human CD48 antibody, clone MEM-102 is useful for the visualisation of CD48 expressing cells by immunofluorescence (<a href="#">Enose-Akahata et al. 2009</a>) and flow cytometry and may be used to differentiate haemopoietic tumors, sarcomas and melanomas.</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>Korínek, V. <i>et al.</i> (1991) The human leucocyte antigen CD48 (MEM-102) is closely related to the activation marker Blast-1. <a href="#">Immunogenetics. 33 (2): 108-12.</a></li> <li>Cinek, T. &amp; Horejsí, V. (1992) The nature of large noncovalent complexes containing glycosyl-phosphatidylinositol-anchored membrane glycoproteins and protein tyrosine kinases. <a href="#">J Immunol. 149 (7): 2262-70.</a></li> <li>Kanuga, N. <i>et al.</i> (2002) Characterization of genetically modified human retinal pigment epithelial cells developed for in vitro and transplantation studies. <a href="#">Invest Ophthalmol Vis Sci. 43: 546-55.</a></li> <li>Staffler, G. <i>et al.</i> (2003) Selective inhibition of T cell activation via CD147 through novel modulation of lipid rafts. <a href="#">J Immunol. 171 (4): 1707-14.</a></li> <li>Fukushima, K. <i>et al.</i> (2005) Functional role played by the glycosylphosphatidylinositol anchor glycan of CD48 in interleukin-18-induced interferon-gamma production. <a href="#">J Biol Chem. 280: 18056-62.</a></li> <li>Enose-Akahata, Y. <i>et al.</i> (2009) High expression of CD244 and SAP regulated CD8 T cell responses of patients with HTLV-I associated neurologic disease. <a href="#">PLoS Pathog. 5: e1000682.</a></li> </ol>

7. Larochelle, A. *et al.* (2011) Human and rhesus macaque hematopoietic stem cells cannot be purified based only on SLAM family markers. [Blood. 117:1550-4.](#)
8. Peterson, L.A. *et al.* (2019) Individual Differences in the Response of Human  $\beta$ -Lymphoblastoid Cells to the Cytotoxic, Mutagenic, and DNA-Damaging Effects of a DNA Methylating Agent, N-Methylnitrosourea. [Chem Res Toxicol. 32 \(11\): 2214-26.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #20487 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA1053PE>  
20487

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**Regulatory** For research purposes only

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## 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](https://www.bio-rad-antibodies.com/datasheets)

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