

Datasheet: MCA1053F

BATCH NUMBER 1608

Description:	MOUSE ANTI HUMAN CD48:FITC
Specificity:	CD48
Other names:	BLAST-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MEM-102
Isotype:	IgG1
Quantity:	0.1 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	▪			Neat

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.

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid.

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
External Database Links	<p>UniProt: P09326 Related reagents</p> <p>Entrez Gene: 962 CD48 Related reagents</p>
Synonyms	BCM1, BLAST1
RRID	AB_321437
Specificity	<p>Mouse anti Human CD48 antibody, clone MEM-102 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 (Kato et al. 1992) and is involved in immune regulation and tolerance (McArdel et al. 2016)</p> <p>Mouse anti Human CD48 antibody, clone MEM-102 is useful for the visualisation of CD48 expressing cells by immunofluorescence (Enose-Akahata et al. 2009) and flow cytometry and may be used in studies to differentiate haemopoietic tumors, sarcomas and melanomas.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1 x 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> Horejsí, V. <i>et al.</i> (1988) Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 (T200), CD3 (T3), CD43, CD10 (CALLA), transferrin receptor (T9), a novel broadly expressed 18-kDa antigen (MEM-43) and a novel antigen of restricted expression (MEM-74). Folia Biol (Praha). 34 (1): 23-34. Korínek, V. <i>et al.</i> (1991) The human leucocyte antigen CD48 (MEM-102) is closely related to the activation marker Blast-1. Immunogenetics. 33 (2): 108-12. Cinek, T. & Horejsí, V. (1992) The nature of large noncovalent complexes containing glycosyl-phosphatidylinositol-anchored membrane glycoproteins and protein tyrosine kinases. J Immunol. 149 (7): 2262-70. Staffler, G. <i>et al.</i> (2003) Selective inhibition of T cell activation via CD147 through novel modulation of lipid rafts. J Immunol. 171 (4): 1707-14. Larochelle, A. <i>et al.</i> (2011) Human and rhesus macaque hematopoietic stem cells cannot be purified based only on SLAM family markers. Blood. 117:1550-4. 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. PLoS Pathog. 5:

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7. Fukushima, K. *et al.* (2005) Functional role played by the glycosylphosphatidylinositol anchor glycan of CD48 in interleukin-18-induced interferon-gamma production. [J Biol Chem. 280: 18056-62](#).

8. Kanuga, N. *et al.* (2002) Characterization of genetically modified human retinal pigment epithelial cells developed for in vitro and transplantation studies. [Invest Ophthalmol Vis Sci. 43: 546-55](#).

9. Peterson, L.A. *et al.* (2019) Individual differences in the response of human β -lymphoblastoid cells to the cytotoxic, mutagenic and DNA damaging effects of a DNA methylating agent, *N*-methylnitrosourea. [Chem Res Toxicol. Oct 07 \[Epub ahead of print\]](#).

Storage Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. 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 #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1053F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

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

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

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