

Datasheet: MCA1053GT

Description:	MOUSE ANTI HUMAN CD48
Specificity:	CD48
Other names:	BLAST-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-102
Isotype:	IgG1
Quantity:	25 µg

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	▪			
Immunohistology - Frozen	▪			1/50 - 1/100
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting (1)	▪			
Immunofluorescence	▪			

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)This product recognizes CD48 under non-reducing conditions.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Rhesus Monkey</p> <p>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.</p>
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	0.09% sodium azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
External Database Links	<p>UniProt: P09326 Related reagents</p> <p>Entrez Gene: 962 CD48 Related reagents</p>
Synonyms	BCM1, BLAST1
RRID	AB_1102104
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 to differentiate haemopoietic tumors, sarcomas and melanomas.</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
Histology Positive Control Tissue	Tonsil
References	<ol style="list-style-type: none"> 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. Kanuga, N. <i>et al.</i> (2002) Characterization of genetically modified human retinal pigment epithelial cells developed for in vitro and transplantation studies. Invest Ophthalmol Vis Sci. 43: 546-55. 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.](#)
5. 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.](#)
6. Enose-Akahata, Y. *et al.* (2009) High expression of CD244 and SAP regulated CD8 T cell responses of patients with HTLV-I associated neurologic disease. [PLoS Pathog. 5: e1000682.](#)
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 β -Lymphoblastoid Cells to the Cytotoxic, Mutagenic, and DNA-Damaging Effects of a DNA Methylating Agent, N-Methylnitrosourea. [Chem Res Toxicol. 32 \(11\): 2214-26.](#)

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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1053GT>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#), [DyLight®650](#), [DyLight®680](#), [DyLight®800](#), [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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