Datasheet: MCA1053APC

Description:	MOUSE ANTI HUMAN CD48:APC
Specificity:	CD48
Other names:	BLAST-1
Format:	APC
Product Type:	Monoclonal Antibody
Clone:	MEM-102
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 - 1/10

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 Allophycocyanin (APC) - lyophilized

Reconstitution

Reconstitute with 1ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
APC	650	661

Preparation

Purified IgG prepared by ion exchange chromatography from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN_3) 1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
External Database Links	**UniProt:** P09326 Related reagents **Entrez Gene:** 962 CD48 Related reagents
Synonyms	BCM1, BLAST1
RRID	AB_2075182
Specificity	**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. CD48 acts as a counter-receptor for CD2 (Kato *et al.* 1992) and is involved in immune regulation and tolerance (McArdel *et al.* 2016) 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 haemapoietic tumors, sarcomas and melanomas.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1 x 10^6 cells in 100ul
References	1. Korínek, V. *et al.* (1991) The human leucocyte antigen CD48 (MEM-102) is closely related to the activation marker Blast-1. Immunogenetics. 33 (2): 108-12. 2. 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. 3. 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. 4. Staffler, G. *et al.* (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-Methylnitrosourethane. Chem Res Toxicol. 32 (11): 2214-26.

Storage	Prior to reconstitution store at +4°C. After 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/MCA1053APC 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:APC (MCA928APC)

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
'M419401:230616'

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