

Datasheet: MCA1019PE

Description:	MOUSE ANTI HUMAN CD38:RPE
Specificity:	CD38
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	AT13/5
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 - 1/5

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		
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		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1%	Bovine Serum Albumin	
	5%	Sucrose	
Immunogen	Namalwa human B-cell line.		

**External Database
Links**

UniProt:

[P28907](#) [Related reagents](#)

Entrez Gene:

[952](#) CD38 [Related reagents](#)

RRID AB_321680

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.

Specificity **Mouse anti Human CD38 antibody, clone AT13/5** recognizes CD38, also known as ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1, 2'-phospho-ADP-ribosyl cyclase, 2'-phospho-ADP-ribosyl cyclase, ADP-ribosyl cyclase 1, Cyclic ADP-ribose hydrolase 1 or T10. CD38 is a 300 amino acid ~45 kDa single pass type II transmembrane glycoprotein and Mouse anti Human CD38 antibody, clone AT13/5 has a reactivity pattern consistent with other antibodies of the CD38 cluster. CD38 is expressed by plasma cells, monocytes, early lymphoid cells and activated T cells.

CD38 is widely used to study the processes of B and T differentiation and activation. CD38 is a multifunctional enzyme involved in calcium signaling and nicotinamide adenine dinucleotide (NAD⁺) metabolism ([de Oliveira et al. 2018](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Corcione, A. *et al.* (2009) CX3CR1 is expressed by human B lymphocytes and mediates [corrected] CX3CL1 driven chemotaxis of tonsil centrocytes. [PLoS One. 4: e8485.](#)
2. Hovden, A.O. *et al.* (2011) Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. [BMC Immunol. 12: 2.](#)
3. Tipping, A.J. *et al.* (2009) High GATA-2 expression inhibits human hematopoietic stem and progenitor cell function by effects on cell cycle [Blood. 113: 2661-72.](#)
4. Slyker, J.A. *et al.* (2012) Acute cytomegalovirus infection is associated with increased frequencies of activated and apoptosis-vulnerable T cells in HIV-1-infected infants. [J Virol. 86 \(20\): 11373-9.](#)
5. Slyker, J.A. *et al.* (2012) The impact of HIV-1 infection and exposure on natural killer (NK) cell phenotype in Kenyan infants during the first year of life. [Front Immunol. 3: 399.](#)

Further Reading 1. Malavasi, F. *et al.* (1994) Human CD38: a glycoprotein in search of a function. [Immunol Today. 15 \(3\): 95-7.](#)

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.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20487 available at: 20487: https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf
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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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Printed on 25 Nov 2021