

Datasheet: MCA1019A647

Description:	MOUSE ANTI HUMAN CD38:Alexa Fluor® 647
Specificity:	CD38
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	AT13/5
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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	▪			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		
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
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		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		
Immunogen	Namalwa human B-cell line.		

**External Database
Links**

UniProt:

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

Entrez Gene:

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

RRID AB_324854

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 or 100ul whole blood.

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 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. This product is photosensitive and should be

protected from light.

Guarantee 12 months from date of despatch

Acknowledgements The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays, and are covered by pending and issued patents.

Health And Safety Information Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

Recommended Useful Reagents

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

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M384620:210513'

Printed on 06 Jan 2022

© 2022 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)