

## Datasheet: MCA1019SBUV445

**BATCH NUMBER 64654609**

<b>Description:</b>	MOUSE ANTI HUMAN CD38:StarBright UltraViolet 445
<b>Specificity:</b>	CD38
<b>Format:</b>	StarBright UltraViolet 445
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AT13/5
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS/0.5ml

### 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to StarBright UltraViolet 445 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright UltraViolet 445	347	440
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% bovine serum albumin		
	0.1% Pluronic F68		
	0.1% PEG 3350		

0.05% Tween 20

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**Immunogen** Namalwa human B-cell line.

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**External Database Links**

**UniProt:**

[P28907](#)   [Related reagents](#)

**Entrez Gene:**

[952](#) CD38   [Related reagents](#)

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

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**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<sup>+</sup>) metabolism ([de Oliveira et al. 2018](#)).

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**Flow Cytometry** Use 5µl of the suggested working dilution to label 10<sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

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**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.](#)
  6. Kelleher, M. *et al.* (2011) Comparative Kinetics of Immune Responses and Changes in Cellular Sub-Sets Detected in Colorectal Cancer Patients Vaccinated with MVA-5T4 (TroVax) Administered Alongside Two Different Chemotherapy Regimens [J Cancer Therapy. 02 \(01\): 54-64.](#)
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**Further Reading**

1. Malavasi, F. *et al.* (1994) Human CD38: a glycoprotein in search of a function. [Immunol Today. 15 \(3\): 95-7.](#)
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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1019SBUV445">https://www.bio-rad-antibodies.com/SDS/MCA1019SBUV445</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M410425:221028'

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