

Datasheet: MCA1019SBY720

Description:	MOUSE ANTI HUMAN CD38:StarBright Yellow 720
Specificity:	CD38
Format:	StarBright Yellow 720
Product Type:	Monoclonal Antibody
Clone:	AT13/5
Isotype:	IgG1
Quantity:	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.

	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.

Target Species	Human		
Product Form	Purified IgG conjugated to StarBright Yellow 720 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	StarBright Yellow 720	549	719
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
	0.1% Pluronic F68		
	0.1% PEG 3350		
	0.05% Tween 20		

Immunogen	Namalwa human B-cell line.
External Database Links	<p>UniProt: P28907 Related reagents</p> <p>Entrez Gene: 952 CD38 Related reagents</p>
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	<p>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.</p> <p>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).</p>
Flow Cytometry	Use 5µl of the suggested working dilution to label 10 ⁶ cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	<ol style="list-style-type: none"> 1. Corcione, A. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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.
Further Reading	1. Malavasi, F. <i>et al.</i> (1994) Human CD38: a glycoprotein in search of a function. Immunol Today. 15 (3): 95-7.
Storage	Store at +4°C. DO NOT FREEZE.

This product should be stored undiluted.

Guarantee	12 months from date of despatch
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Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
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Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA1019SBY720 20471
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

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

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

North & South America	Tel: +1 800 265 7376 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
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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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