

## Datasheet: MCA1019SBUV445

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| <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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|--------------------------------|---|
| <b>Immunogen</b>               | Namalwa human B-cell line.  |
| <b>External Database Links</b> | <p><b>UniProt:</b><br/> <a href="#">P28907</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">952</a>    CD38    <a href="#">Related reagents</a></p>  |
| <b>Fusion Partners</b>         | Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.   |
| <b>Specificity</b>             | <p><b>Mouse anti Human CD38 antibody, clone AT13/5</b> 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<sup>+</sup>) metabolism (<a href="#">de Oliveira et al. 2018</a>).</p>   |
| <b>Flow Cytometry</b>          | 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.   |
| <b>References</b>              | <ol style="list-style-type: none"> <li>1. Corcione, A. <i>et al.</i> (2009) CX3CR1 is expressed by human B lymphocytes and mediates [corrected] CX3CL1 driven chemotaxis of tonsil centrocytes. <a href="#">PLoS One. 4: e8485.</a></li> <li>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. <a href="#">BMC Immunol. 12: 2.</a></li> <li>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 <a href="#">Blood. 113: 2661-72.</a></li> <li>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. <a href="#">J Virol. 86 (20): 11373-9.</a></li> <li>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. <a href="#">Front Immunol. 3: 399.</a></li> <li>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 <a href="#">J Cancer Therapy. 02 (01): 54-64.</a></li> </ol> |
| <b>Further Reading</b>         | 1. Malavasi, F. <i>et al.</i> (1994) Human CD38: a glycoprotein in search of a function. <a href="#">Immunol Today. 15 (3): 95-7.</a>   |
| <b>Storage</b>                 | Store at +4°C. DO NOT FREEZE.   |

This product should be stored undiluted.

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| <b>Guarantee</b> | 12 months from date of despatch |
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| <b>Acknowledgements</b> | This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #20471 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA1019SBUV445">https://www.bio-rad-antibodies.com/SDS/MCA1019SBUV445</a><br>20471 |
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|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Useful Reagents

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

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

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|---|------------------|---|---------------|---|

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)  
'M410425:221028'

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