

## Datasheet: MCA1271SBV790

|                      |   |
|----------------------|---|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD33:StarBright Violet 790 |
| <b>Specificity:</b>  | CD33  |
| <b>Format:</b>       | StarBright Violet 790                       |
| <b>Product Type:</b> | Monoclonal Antibody                         |
| <b>Clone:</b>        | WM53  |
| <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 Violet 790 - liquid                                     |                            |                          |
| <b>Max Ex/Em</b>       | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                        | StarBright Violet 790   | 401                        | 782                      |
| <b>Preparation</b>     | Purified IgG prepared by affinity chromatography on Protein G 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  |                            |                          |

|                                |  |
|--------------------------------|--|
| <b>Immunogen</b>               | Human AML cells  |
| <b>External Database Links</b> | <p><b>UniProt:</b><br/> <a href="#">P20138</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">945</a>    CD33    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                | SIGLEC3  |
| <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 CD33 antibody, clone WM53</b> recognizes the human CD33 cell surface glycoprotein. This antigen, considered to be specific for the myeloid lineage, has also been reported to be present on cells of lymphoid origin.</p> <p>Mouse anti Human CD33 antibody, clone WM53 immunoprecipitates a protein of ~75 kDa from myeloid cells, a smaller protein of approximately 67 kDa has been observed in immunoprecipitates from lymphoid targets.</p>  |
| <b>Flow Cytometry</b>          | Use 5ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul. 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. Favaloro, E.J. <i>et al.</i> (1987) Characterization of monoclonal antibodies to the human myeloid-differentiation antigen, gp67 (CD-33). <a href="#">Dis Markers. 5 (4): 215-25.</a></li> <li>2. Favaloro, E.J. <i>et al.</i> (1988) Further characterization of human myeloid antigens (gp160,95; gp150; gp67): investigation of epitopic heterogeneity and non-haemopoietic distribution using panels of monoclonal antibodies belonging to CD-11b, CD-13 and CD-33. <a href="#">Br J Haematol. 69 (2): 163-71.</a></li> <li>3. Hernández-Caselles, T. <i>et al.</i> (2006) A study of CD33 (SIGLEC-3) antigen expression and function on activated human T and NK cells: two isoforms of CD33 are generated by alternative splicing. <a href="#">J Leukoc Biol. 79: 46-58.</a></li> <li>4. Biedermann, B. <i>et al.</i> (2006) Analysis of the CD33-related siglec family reveals that Siglec-9 is an endocytic receptor expressed on subsets of acute myeloid leukemia cells and absent from normal hematopoietic progenitors. <a href="#">Leuk Res. 31: 211-20.</a></li> <li>5. Lajaunias, F. <i>et al.</i> (2005) Constitutive repressor activity of CD33 on human monocytes requires sialic acid recognition and phosphoinositide 3-kinase-mediated intracellular signaling. <a href="#">Eur J Immunol. 35: 243-51.</a></li> <li>6. Pietschmann, P. <i>et al.</i> (2000) Surface markers and transendothelial migration of dendritic cells from elderly subjects. <a href="#">Exp Gerontol. 35: 213-24.</a></li> <li>7. Favaloro, E.J. <i>et al.</i> (1993) Differential expression of surface antigens on activated endothelium. <a href="#">Immunol Cell Biol. 71:571-81.</a></li> <li>8. Yasukawa, T. <i>et al.</i> (2012) Simple detection of surface antigens on living cells by applying distinct cell positioning with negative dielectrophoresis. <a href="#">Anal Chem. 84 (20): 8830-6.</a></li> <li>9. Hu, Z. <i>et al.</i> (2016) Self-assembled nanoparticles based on folic acid modified</li> </ol> |

carboxymethyl chitosan conjugated with targeting antibody [J Wuhan Univ of Technol-Mater. Sci. Ed. 31 \(2\): 446-53.](#)

10. Dahl C *et al.* (2004) Human mast cells express receptors for IL-3, IL-5 and GM-CSF; a partial map of receptors on human mast cells cultured *in vitro*. [Allergy. 59 \(10\): 1087-96.](#)

11. Vamvakopoulos, J.E. & Green, C. (2003) HMG-CoA reductase inhibition aborts functional differentiation and triggers apoptosis in cultured primary human monocytes: a potential mechanism of statin-mediated vasculoprotection. [BMC Cardiovasc Disord. 3: 6.](#)

12. Vamvakopoulos, J. *et al.* (2002) Genetic control of IL-1beta bioactivity through differential regulation of the IL-1 receptor antagonist. [Eur J Immunol. 32 \(10\): 2988-96.](#)

13. Lin, C.W. *et al.* (2005) CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. [Blood. 106 \(10\): 3567-74.](#)

14. McCormack E *et al.* (2013) Multiplexed mAbs: a new strategy in preclinical time-domain imaging of acute myeloid leukemia. [Blood. 121 \(7\): e34-42.](#)

15. Hernández-Caselles T *et al.* (2019) CD33 (Siglec-3) Inhibitory Function: Role in the NKG2D/DAP10 Activating Pathway. [J Immunol Res. 2019: 6032141.](#)

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**Storage**

Store at +4°C. DO NOT FREEZE.  
This product should be stored undiluted.

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**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:  
20471: <https://www.bio-rad-antibodies.com/uploads/MSDS/20471.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### 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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