

## Datasheet: MCA1271SBV710

|                      |   |
|----------------------|---|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD33:StarBright Violet 710 |
| <b>Specificity:</b>  | CD33  |
| <b>Format:</b>       | StarBright Violet 710                       |
| <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 710 - liquid                                     |                            |                          |
| <b>Max Ex/Em</b>       | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                        | StarBright Violet 710   | 401                        | 713                      |
| <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  |                            |                          |

Immunogen Human AML cells

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**External Database**

**Links**

**UniProt:**

[P20138](#)   [Related reagents](#)

**Entrez Gene:**

[945](#) CD33   [Related reagents](#)

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**Synonyms**

SIGLEC3

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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 CD33 antibody, clone WM53** 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.

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.

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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. Favaloro, E.J. *et al.* (1987) Characterization of monoclonal antibodies to the human myeloid-differentiation antigen, gp67 (CD-33). [Dis Markers. 5 \(4\): 215-25.](#)
2. Favaloro, E.J. *et al.* (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. [Br J Haematol. 69 \(2\): 163-71.](#)
3. Hernández-Caselles, T. *et al.* (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. [J Leukoc Biol. 79: 46-58.](#)
4. Biedermann, B. *et al.* (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. [Leuk Res. 31: 211-20.](#)
5. Lajaunias, F. *et al.* (2005) Constitutive repressor activity of CD33 on human monocytes requires sialic acid recognition and phosphoinositide 3-kinase-mediated intracellular signaling. [Eur J Immunol. 35: 243-51.](#)
6. Pietschmann, P. *et al.* (2000) Surface markers and transendothelial migration of dendritic cells from elderly subjects. [Exp Gerontol. 35: 213-24.](#)
7. Favaloro, E.J. *et al.* (1993) Differential expression of surface antigens on activated endothelium. [Immunol Cell Biol. 71:571-81.](#)
8. Yasukawa, T. *et al.* (2012) Simple detection of surface antigens on living cells by applying distinct cell positioning with negative dielectrophoresis. [Anal Chem. 84 \(20\): 8830-6.](#)
9. Hu, Z. *et al.* (2016) Self-assembled nanoparticles based on folic acid modified

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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| <b>Storage</b>                       | Store at +4°C.<br>DO NOT FREEZE.<br>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/MCA1271SBV710">https://www.bio-rad-antibodies.com/SDS/MCA1271SBV710</a><br>20471 |
| <b>Regulatory</b>                    | For research purposes only  |

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## Related Products

### 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](mailto: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](mailto: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](mailto: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](https://www.bio-rad-antibodies.com/datasheets)

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