# Datasheet: MCA1271SBUV575

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| **Description:** | MOUSE ANTI HUMAN CD33:StarBright UltraViolet 575 |
| **Specificity:** | CD33 |
| **Format:** | StarBright UltraViolet 575 |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | WM53 |
| **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 UltraViolet 575 - liquid

**Max Ex/Em**

| Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|---|---|---|
| StarBright UltraViolet 575 | 340 | 569 |

**Preparation**

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution**

Phosphate buffered saline

**Preservative Stabilisers**

0.09% sodium azide ($NaN_3$)
1% bovine serum albumin
0.1% Pluronic F68
0.1% PEG 3350
0.05% Tween 20

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| **Immunogen** | Human AML cells |
| **External Database Links** | **UniProt:**<br>P20138 Related reagents<br><br>**Entrez Gene:**<br>945 CD33 Related reagents |
| **Synonyms** | SIGLEC3 |
| **Fusion Partners** | Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line |
| **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.<br><br>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. |
| **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** | 1. 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.<br>2. Favaloro, E.J. *et al*. (1993) Differential expression of surface antigens on activated endothelium. Immunol Cell Biol. 71:571-81.<br>3. Pietschmann, P. *et al.* (2000) Surface markers and transendothelial migration of dendritic cells from elderly subjects. Exp Gerontol. 35: 213-24.<br>4. 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.<br>5. 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.<br>6. 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.<br>7. 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.<br>8. 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.<br>9. 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.
10. 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.
11. 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.
12. McCormack E *et al.* (2013) Multiplexed mAbs: a new strategy in preclinical time-domain imaging of acute myeloid leukemia. Blood. 121 (7): e34-42.
13. 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.
14. 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.<br>DO NOT FREEZE.<br>This product should be stored undiluted. |
| **Guarantee** | 12 months from date of despatch |
| **Acknowledgements** | This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts |
| **Health And Safety Information** | Material Safety Datasheet documentation #20471 available at:<br>https://www.bio-rad-antibodies.com/SDS/MCA1271SBUV575<br>20471 |
| **Regulatory** | For research purposes only |

## 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
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**Europe** Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: 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
'M409042:221017'

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