

# Datasheet: MCA1271SBB765

| Description:  | MOUSE ANTI HUMAN CD33:StarBright Blue 765 |
|---------------|---|
| Specificity:  | CD33                                      |
| Format:       | StarBright Blue 765                       |
| Product Type: | Monoclonal Antibody                       |
| Clone:        | WM53                                      |
| Isotype:      | lgG1                                      |
| Quantity:     | 100 TESTS/0.5ml                           |
|               |   |

### **Product Details**

| Applications    | This product has been reported to work in the following applications. This information 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 <u>www.bio-rad-antibodies.com/protocols</u> . |                  |         |                          |                      |  |
|-----------------|---|------------------|---------|--------------------------|----------------------|--|
|                 |   | Yes              | No      | Not Determined           | Suggested Dilution   |  |
|                 | Flow Cytometry  | -                |         |                          | Neat                 |  |
|                 | Where this product ha   | is not been tes  | ted for | use in a particular tech | inique this does not |  |
|                 | necessarily exclude its use in such procedures. Suggested working dilutions are given a 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 Blue 765 - liquid   |                  |         |                          |                      |  |
| Max Ex/Em       | Fluorophore   | Excitation Ma    | x (nm)  | Emission Max (nm)        |                      |  |
|                 | StarBright Blue 765   | 476              |         | 764                      |                      |  |
| Preparation     | Purified IgG prepared supernatant   | by affinity chro | omatogi | raphy on Protein G fror  | n tissue culture     |  |
| Buffer Solution | Phosphate buffered saline   |                  |         |                          |                      |  |
| Preservative    | 0.09% sodium azide (NaN <sub>3</sub> )  |                  |         |                          |                      |  |
| Stabilisers     | 1% bovine serum albumin   |                  |         |                          |                      |  |
|                 | 0.1% Pluronic F68   |                  |         |                          |                      |  |
|                 | 0.1% PEG 3350   |                  |         |                          |                      |  |
|                 | 0.05% Tween 20  |                  |         |                          |                      |  |

| Immunogen                  | Human AML cells  |
|----------------------------|--|
| External Database<br>Links | UniProt:         P20138       Related reagents         Entrez Gene:         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                | <ul> <li>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.</li> <li>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.</li> </ul>  |
| 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.  |
| References                 | <ol> <li>Favaloro, E.J. <i>et al.</i> (1988) Further characterization of human myeloid antigens<br/>(gp160,95; gp150; gp67): investigation of epitopic heterogeneity and non-haemopoietic<br/>distribution using panels of monoclonal antibodies belonging to CD-11b, CD-13 and<br/>CD-33. <u>Br J Haematol. 69 (2): 163-71.</u></li> <li>Favaloro, E.J. <i>et al.</i> (1993) Differential expression of surface antigens on activated<br/>endothelium. <u>Immunol Cell Biol. 71:571-81.</u></li> <li>Pietschmann, P. <i>et al.</i> (2000) Surface markers and transendothelial migration of<br/>dendritic cells from elderly subjects. <u>Exp Gerontol. 35: 213-24.</u></li> <li>Vamvakopoulos, J. <i>et al.</i> (2002) Genetic control of IL-1beta bioactivity through<br/>differential regulation of the IL-1 receptor antagonist. <u>Eur J Immunol. 32 (10): 2988-96.</u></li> <li>Vamvakopoulos, J.E. &amp; Green, C. (2003) HMG-CoA reductase inhibition aborts<br/>functional differentiation and triggers apoptosis in cultured primary human monocytes: a<br/>potential mechanism of statin-mediated vasculoprotection. <u>BMC Cardiovasc Disord. 3: 6.</u></li> <li>Dahl C <i>et al.</i> (2004) Human mast cells cultured <i>in vitro</i>. <u>Allergy. 59 (10): 1087-96.</u></li> <li>Lajaunias, F. <i>et al.</i> (2005) Constitutive repressor activity of CD33 on human monocytes<br/>requires sialic acid recognition and phosphoinositide 3-kinase-mediated intracellular<br/>signaling. <u>Eur J Immunol. 35: 243-51.</u></li> <li>Lin, C.W. <i>et al.</i> (2005) CD94 1A transcripts characterize lymphoblastic<br/>lymphoma/leukemia of immature natural killer cell origin with distinct clinical features.<br/><u>Biood. 106 (10): 3567-74.</u></li> <li>Hernández-Caselles, T. <i>et al.</i> (2006) A study of CD33 (SIGLEC-3) antigen expression<br/>and function on activated human T and NK cells: two isoforms of CD33 are generated by</li> </ol> |

|  | alternative splicing. <u>J Leukoc Biol. 79: 46-58.</u>  |  |  |  |  |
|--|---|--|--|--|--|
|  | 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. <i>et al.</i> (2012) Simple detection of surface antigens on living cells by   |  |  |  |  |
|  | applying distinct cell positioning with negative dielectrophoresis. Anal Chem. 84 (20):   |  |  |  |  |
|  | <u>8830-6.</u>  |  |  |  |  |
|  | 12. McCormack E <i>et al.</i> (2013) Multiplexed mAbs: a new strategy in preclinical  |  |  |  |  |
|  | time-domain imaging of acute myeloid leukemia. <u>Blood. 121 (7): e34-42.</u>   |  |  |  |  |
|  | 13. Hu, Z. et al. (2016) Self-assembled nanoparticles based on folic acid modified  |  |  |  |  |
|  | carboxymethyl chitosan conjugated with targeting antibody <u>J Wuhan Univ of Technol-</u>   |  |  |  |  |
|  | 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. <u>J Immunol Res. 2019: 6032141.</u>  |  |  |  |  |
|  |   |  |  |  |  |
| Storage  | Store at $\pm 1^{\circ}$ C  |  |  |  |  |
| Storage  | Store at +4°C.  |  |  |  |  |
| Storage  | DO NOT FREEZE.  |  |  |  |  |
| Storage  |   |  |  |  |  |
| Storage<br>Guarantee                               | DO NOT FREEZE.  |  |  |  |  |
|  | DO NOT FREEZE.<br>This product should be stored undiluted.<br>12 months from date of despatch<br>This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign   |  |  |  |  |
| Guarantee  | DO NOT FREEZE.<br>This product should be stored undiluted.<br>12 months from date of despatch   |  |  |  |  |
| Guarantee  | DO NOT FREEZE.<br>This product should be stored undiluted.<br>12 months from date of despatch<br>This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign   |  |  |  |  |
| Guarantee<br>Acknowledgements                      | DO NOT FREEZE.<br>This product should be stored undiluted.<br>12 months from date of despatch<br>This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign<br>counterparts   |  |  |  |  |
| Guarantee<br>Acknowledgements<br>Health And Safety | DO NOT FREEZE.<br>This product should be stored undiluted.<br>12 months from date of despatch<br>This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign<br>counterparts<br>Material Safety Datasheet documentation #20471 available at: |  |  |  |  |

## **Related Products**

#### **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

| North & South | Tel: +1 800 265 7376                 | Worldwide | Tel: +44 (0)1865 852 700             | Europe | Tel: +49 (0) 89 8090 95 21           |
|---------------|--------------------------------------|-----------|--------------------------------------|--------|--------------------------------------|
| America       | Fax: +1 919 878 3751                 |           | Fax: +44 (0)1865 852 739             |        | Fax: +49 (0) 89 8090 95 50           |
|               | Email: antibody_sales_us@bio-rad.com |           | Email: antibody_sales_uk@bio-rad.com |        | 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 'M410005:221024'

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