

## Datasheet: MCA1271SBY800

<b>Description:</b>	MOUSE ANTI HUMAN CD33:StarBright Yellow 800
<b>Specificity:</b>	CD33
<b>Format:</b>	StarBright Yellow 800
<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 Yellow 800 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright Yellow 800	549	788
<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
External Database Links	<p><b>UniProt:</b>  <a href="#">P20138</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">945</a>    CD33    <a href="#">Related reagents</a></p>
Synonyms	SIGLEC3
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line
Specificity	<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>
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 style="list-style-type: none"> <li>1. 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>2. 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>3. 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>4. Vamvakopoulos, J. <i>et al.</i> (2002) Genetic control of IL-1beta bioactivity through differential regulation of the IL-1 receptor antagonist. <a href="#">Eur J Immunol. 32 (10): 2988-96.</a></li> <li>5. Vamvakopoulos, J.E. &amp; 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. <a href="#">BMC Cardiovasc Disord. 3: 6.</a></li> <li>6. Dahl C <i>et al.</i> (2004) Human mast cells express receptors for IL-3, IL-5 and GM-CSF; a partial map of receptors on human mast cells cultured <i>in vitro</i>. <a href="#">Allergy. 59 (10): 1087-96.</a></li> <li>7. 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>8. Lin, C.W. <i>et al.</i> (2005) CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. <a href="#">Blood. 106 (10): 3567-74.</a></li> <li>9. 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</li> </ol>

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.](#)

<b>Storage</b>	Store at +4°C. DO NOT FREEZE. 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/MCA1271SBY80020471">https://www.bio-rad-antibodies.com/SDS/MCA1271SBY80020471</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

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