

## Datasheet: MCA1271SBB580

**BATCH NUMBER 64755626**

<b>Description:</b>	MOUSE ANTI HUMAN CD33:StarBright Blue 580
<b>Specificity:</b>	CD33
<b>Other names:</b>	SIGLEC-3
<b>Format:</b>	StarBright Blue 580
<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 Blue 580 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright Blue 580	475	582
<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

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**Approx. Protein Concentrations** For information on the concentration of our StarBright Dye conjugated reagents please visit our [FAQ](#) page.

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**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**, is a monoclonal antibody that recognizes CD33, also known as Siglec-3 or gp67.

Clone WM53 detects CD33 in humans and has been validated in the following applications: flow cytometry, immunoprecipitation and western blotting. 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.

CD33 is a single pass type I membrane protein and member of the sialic acid-binding immunoglobulin-like lectin (Siglec) family. CD33 is expressed on myeloid progenitors, monocytes, granulocytes, dendritic cells and mast cells, but is absent on lymphocytes, normal platelets, hematopoietic stem cells and erythrocytes. Upon CD33 activation, the immunoreceptor tyrosine-based inhibition motif (ITIM) is phosphorylated by Src family kinases, resulting in recruitment of SH2 domain containing phosphatases and inhibition of cellular activation. As sialoglycans are present on almost all human cells, CD33 and other members of the siglec family have a role in discriminating self from non-self.

Mouse anti human CD33 antibody, clone WM53, is also available as a recombinant antibody ([TZA1271](#)).

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**Flow Cytometry** Use 5µl of the suggested working dilution to label  $0.5 \times 10^6$  cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.

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**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.](#)
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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.](#)
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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.](#)
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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**

This product is shipped at ambient temperature.  
 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: <https://www.bio-rad-antibodies.com/SDS/MCA1271SBB580>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Useful Reagents

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

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

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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