

# CD33 Monoclonal Mouse Antibody (WM53)

## Product Description

Recognizes a 67 kDa glycoprotein, which is identified as CD33 (HLDA IV; WS Code M-505). CD33 is a transmembrane protein of the sialic acid-binding immunoglobulin-like lectin (Siglec) family. It belongs to the immuno-receptor tyrosine-based inhibitory motif (ITIM)-containing molecules able of recruiting protein tyrosine phosphatases SHP-1 and SHP-2 to signal assemblies; these ITIMs are also used for ubiquitin-mediated removal of the receptor from the cell surface. CD33 is expressed on cells of myelomonocytic lineage, binds sialic acid residues in N- and O-glycans on cell surfaces, and is a therapeutic target for acute myeloid leukemia. CD33 is expressed on myeloid progenitors, monocytes, granulocytes, dendritic cells and mast cells. It is absent on platelets, lymphocytes, erythrocytes and hematopoietic stem cells.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 0166, Anti-CD33 (WM53)**

## Product attributes

Antibody number	#0166
Antibody reactivity (target)	CD33
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	WM53
Isotype	IgG1, kappa
Molecular weight	67 kDa
Synonyms	gp67; My9; Myeloid cell surface antigen CD33; p67; Sialic acid-binding Ig-like lectin 3 (SIGLEC3)
Human gene symbol	CD33
Entrez gene ID	945
SwissProt	P20138
Unigene	83731
Immunogen	Human AML cells
Antibody target cellular localization	Plasma membrane
Expected antibody applications	Flow, surface (published for clone), IHC (FFPE) (published for clone)
Species reactivity	Human
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL
Positive control	Human dendritic and mast cells. Human lymph nodes and tonsils.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Immunology
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	Dendritic cells, Monocytes/macrophages, Myeloid cells
Tumor expression	Leukemia/lymphoma

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. Immunity (2002) 17(3), 289-301. (Flow)
2. J Leukocyte Biol (2006) 79(1), 46-58. (Flow, IP)
3. Oncolimmunology, 7:4, DOI: 10.1080/2162402X.2017.1397248 (immunohistochemistry)
4. Glycobiology (2011) 21(6), 757-770 (epitope mapping)