

## ARG54313 anti-CD33 antibody [WM53] (APC)

Package: 50 tests

Store at: 4°C

### Summary

Product Description	APC-conjugated Mouse Monoclonal antibody [WM53] recognizes CD33
Tested Reactivity	Hu, NHuPrm
Tested Application	FACS
Specificity	The clone WM53 reacts with CD33, a 67 kDa type I transmembrane glycoprotein (immunoglobulin superfamily) expressed on myeloid progenitors, monocytes, granulocytes, dendritic cells and mast cells; it is absent on platelets, lymphocytes, erythrocytes and hematopoietic stem cells. HLDA IV; WS Code M-505
Host	Mouse
Clonality	Monoclonal
Clone	WM53
Isotype	IgG1
Target Name	CD33
Species	Human
Immunogen	Human AML cells
Conjugation	APC
Alternate Names	p67; Sialic acid-binding Ig-like lectin 3; SIGLEC-3; CD antigen CD33; gp67; Siglec-3; Myeloid cell surface antigen CD33; SIGLEC3

### Application Instructions

Application table	Application	Dilution
	FACS	10 µl / 10 <sup>6</sup> cells

**Application Note** \* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

### Properties

Form	Liquid
Purification Note	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be

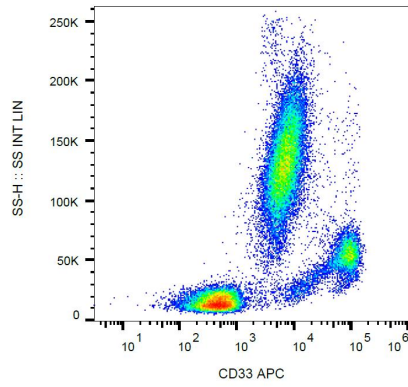
gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

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Database links	<a href="#">GeneID: 945 Human</a> <a href="#">Swiss-port # P20138 Human</a>
Gene Symbol	CD33
Gene Full Name	CD33 molecule
Background	CD33 is a transmembrane protein of the sialic acid-binding immunoglobulin-like lectin (Siglec) family. It belongs to the immunoreceptor 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.
Function	CD33: Sialic-acid-binding immunoglobulin-like lectin (Siglec) that plays a role in mediating cell-cell interactions and in maintaining immune cells in a resting state (PubMed:10611343, PubMed:15597323, PubMed:11320212). Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans (PubMed:7718872). Upon engagement of ligands such as C1q or sialylated glycoproteins, two immunoreceptor tyrosine-based inhibitory motifs (ITIMs) located in CD33 cytoplasmic tail are phosphorylated by Src-like kinases such as LCK (PubMed:28325905, PubMed:10887109). These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:10556798, PubMed:10206955, PubMed:10887109). In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules (PubMed:10206955, PubMed:10887109). One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K (PubMed:15597323). [UniProt]
Highlight	Related products: <a href="#">CD33 antibodies</a> ; <a href="#">CD33 ELISA Kits</a> ; <a href="#">CD33 Duos / Panels</a> ; <a href="#">Anti-Mouse IgG secondary antibodies</a> ; Related news: <a href="#">New antibody panels and duos for Tumor immune microenvironment</a> <a href="#">Anti-SerpinB9 therapy, a new strategy for cancer therapy</a>
Research Area	Developmental Biology antibody; Immune System antibody; Human MDSC Marker antibody; Myeloid-derived suppressor cell antibody
Calculated Mw	40 kDa
PTM	Phosphorylation of Tyr-340 is involved in binding to PTPN6 and PTPN11. Phosphorylation of Tyr-358 is involved in binding to PTPN6.



ARG54313 anti-CD33 antibody [WM53] (APC) FACS image

Flow Cytometry: Human peripheral blood stained with ARG54313 anti-CD33 antibody [WM53] (APC).

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