ARG22172
anti-CD33 antibody [WM53] (PE-Cyanine 5.5)

Package: 50 tests
Store at: 4°C

Summary

Product Description	PE-Cyanine 5.5-conjugated Mouse Monoclonal antibody [WM53] recognizes CD33
Tested Reactivity	Hu
Tested Application	BL, FACS, ICC/IF, IHC-Fr, WB
Specificity	Human CD33
Host	Mouse
Clonality	Monoclonal
Clone	WM53
Isotype	IgG1, kappa
Target Name	CD33
Species	Human
Immunogen	Human AML cells.
Conjugation	PE-Cyanine 5.5
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
BL	Assay-dependent
FACS	10 µl/10^6 cells
ICC/IF	Assay-dependent
IHC-Fr	Assay-dependent
WB	Assay-dependent

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

Properties

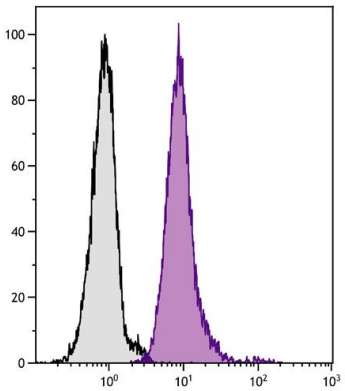
Form	Liquid
Buffer	PBS, 0.1% Sodium azide and Sucrose.
Preservative	0.1% Sodium azide
Stabilizer	Sucrose
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be

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

Bioinformation

Database links	GeneID: 945 Human Swiss-port # P20138 Human
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 syalylated 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: CD33 antibodies; CD33 ELISA Kits; CD33 Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: New antibody panels and duos for Tumor immune microenvironment Anti-SerpinB9 therapy, a new strategy for cancer therapy
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.

Images



ARG22172 anti-CD33 antibody [WM53] (PE-Cyanine 5.5) FACS image

Flow Cytometry: Human peripheral blood granulocytes stained with ARG22172 anti-CD33 antibody [WM53] (PE-Cyanine 5.5).