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Anti-CD33 Picoband Antibody

Catalog # ABO12617

Product Information

Application	WB, IHC-P, IHC-F, FC, ICC
Primary Accession	P20138
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Myeloid cell surface antigen CD33(CD33) detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	945
Other Names	Myeloid cell surface antigen CD33, Sialic acid-binding Ig-like lectin 3, Siglec-3, gp67, CD33, CD33, SIGLEC3
Calculated MW	39825
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, By Heat Immunohistochemistry(Frozen Section), 0.5-1 □g/ml Immunocytochemistry, 0.5-1 □g/ml Western blot, 0.1-0.5 □g/ml Flow Cytometry, 1-3 □¼g/1x10^{6}cells
Subcellular Localization	Cell membrane; Single-pass type I membrane protein.
Tissue Specificity	Monocytic/myeloid lineage cells.
Source	Eukaryota
Protein Name	Myeloid cell surface antigen CD33
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human CD33 recombinant protein (Position: D18-H259). Human CD33 shares 61.6% amino acid (aa) sequence identity with mouse CD33.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

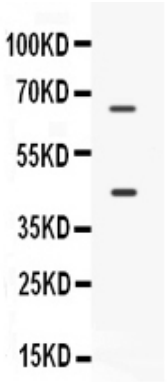
Protein Information

Name	CD33
Synonyms	SIGLEC3
Function	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:11320212, PubMed:15597323). 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:10887109, PubMed:28325905). These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP- 2 (PubMed:10206955, PubMed:10556798, 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).
Cellular Location	[Isoform CD33M]: Cell membrane; Single-pass type I membrane protein
Tissue Location	Monocytic/myeloid lineage cells. In the brain, CD33 is mainly expressed on microglial cells

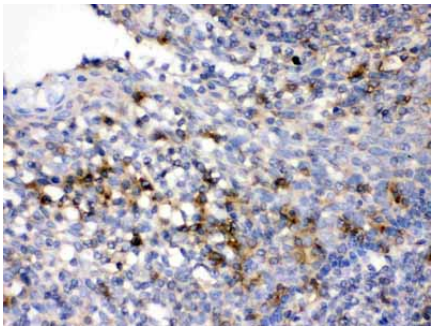
Background

CD33, also known as Siglec-3 (sialic acid binding Ig-like lectin 3, SIGLEC3, SIGLEC-3, gp67, p67), is a transmembrane receptor expressed on cells of myeloid lineage. It is usually considered myeloid-specific, but it can also be found on some lymphoid cells. CD33 binds sialic acids, therefore is a member of the SIGLEC family of lectins. By fluorescence in situ hybridization, CD33 is mapped to 19q13.3-q13.4.

Images



Western blot analysis of CD33 expression in SKOV3 whole cell lysates (lane 1). CD33 at 45KD; 67KD was detected using rabbit anti-CD33 Antigen Affinity purified polyclonal antibody (Catalog # ABO12617) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



CD33 was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti- CD33 Antigen Affinity purified polyclonal antibody (Catalog # ABO12617) at 1 μg/mL. The immunohistochemical section was developed using SABC method .

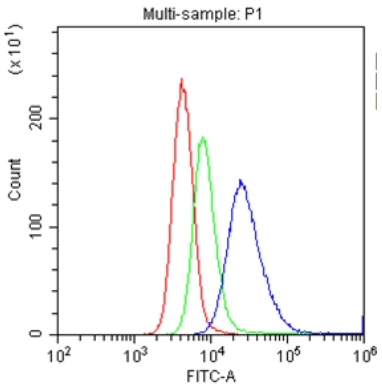


Figure 3. Flow Cytometry analysis of U937 cells using anti-CD33 antibody (ABO12617).Overlay histogram showing U937 cells stained with ABO12617 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD33 Antibody (ABO12617,1 μg/1x106 cells) for 30 min at 20 °C. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 °C. Isotype control antibody (Green line) was rabbit IgG (1 μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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