

Anti-CD33 Picoband Antibody
Catalog # ABO12617**Specification**

Anti-CD33 Picoband Antibody - Product Information

Application	WB, IHC, FC
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.

Anti-CD33 Picoband Antibody - 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 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml
Immunocytochemistry, 0.5-1 µg/ml
Western blot, 0.1-0.5 µg/ml
Flow Cytometry, 1-3¹/₄g/1x10⁶ cells

Subcellular Localization

Cell membrane; Single-pass type I membrane protein.

Tissue Specificity

Monocytic/myeloid lineage cells.

Protein Name

Myeloid cell surface antigen CD33

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

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 reconstitution, 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.

Anti-CD33 Picoband Antibody - 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 sialylated 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

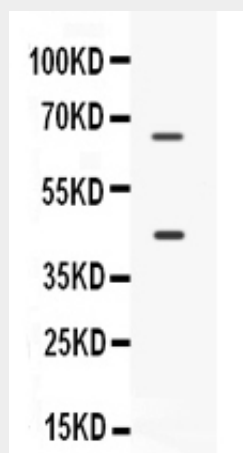
Monocytic/myeloid lineage cells. In the brain, CD33 is mainly expressed on microglial cells

Anti-CD33 Picoband Antibody - Protocols

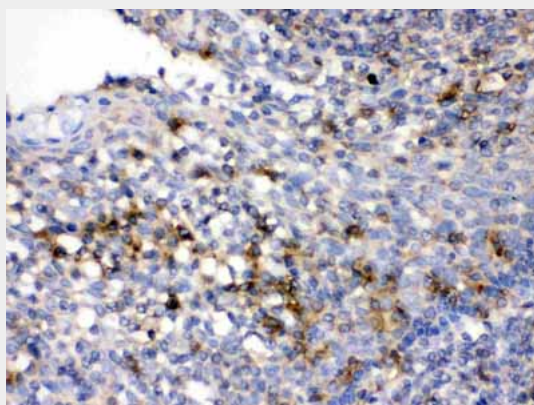
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-CD33 Picoband Antibody - 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 µg/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 .

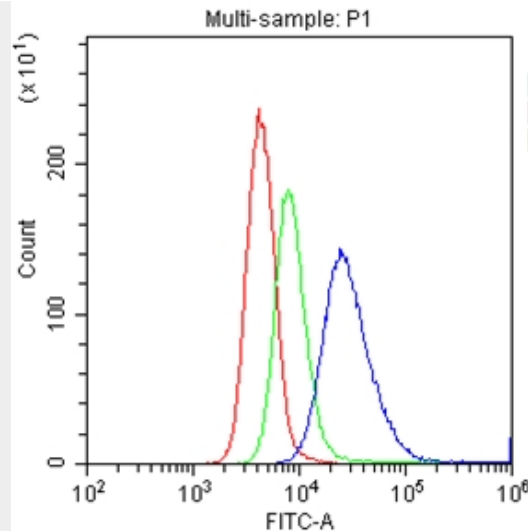


Figure 3. Flow Cytometry analysis of U937 cells using anti-CD33 antibody (ABO12617). Overlay histogram showing U937 cells stained with ABO12617 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD33 Antibody (ABO12617, $1\frac{1}{4}\mu\text{g}/1 \times 10^6$ cells) for 30 min at 20°C . DyLight[®]488 conjugated goat anti-rabbit IgG (BA1127, $5 \cdot 10\frac{1}{4}\mu\text{g}/1 \times 10^6$ cells) was used as secondary antibody for 30 minutes at 20°C . Isotype control antibody (Green line) was rabbit IgG ($1\frac{1}{4}\mu\text{g}/1 \times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-CD33 Picoband Antibody - 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.