

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

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**Anti-CD33 Picoband Antibody - Product Information**

Application	WB, IHC, FC
Primary Accession	<a href="#">P20138</a>
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, 1-3<sup>1</sup>/<sub>4</sub>g/1x10<sup>6</sup> 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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**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.**

**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:<a href="http://www.uniprot.org/citations/10611343" target="\_blank">10611343</a>, PubMed:<a href="http://www.uniprot.org/citations/15597323" target="\_blank">15597323</a>, PubMed:<a href="http://www.uniprot.org/citations/11320212" target="\_blank">11320212</a>). Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans (PubMed:<a href="http://www.uniprot.org/citations/7718872" target="\_blank">7718872</a>). 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:<a href="http://www.uniprot.org/citations/28325905" target="\_blank">28325905</a>, PubMed:<a href="http://www.uniprot.org/citations/10887109" target="\_blank">10887109</a>). These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP- 2 (PubMed:<a href="http://www.uniprot.org/citations/10556798" target="\_blank">10556798</a>, PubMed:<a href="http://www.uniprot.org/citations/10206955" target="\_blank">10206955</a>, PubMed:<a href="http://www.uniprot.org/citations/10887109" target="\_blank">10887109</a>). In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules (PubMed:<a href="http://www.uniprot.org/citations/10206955" target="\_blank">10206955</a>, PubMed:<a href="http://www.uniprot.org/citations/10887109" target="\_blank">10887109</a>). One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K (PubMed:<a href="http://www.uniprot.org/citations/15597323" target="\_blank">15597323</a>).

**Cellular Location**

[Isoform CD33M]: Cell membrane; Single-pass type I membrane protein

**Tissue Location**

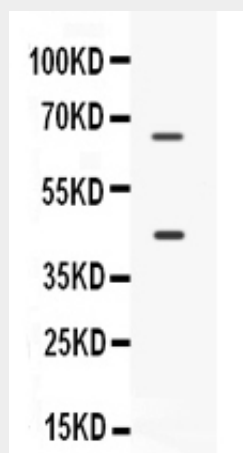
Monocytic/myeloid lineage cells. In the brain, CD33 is mainly expressed on microglial cells

**Anti-CD33 Picoband Antibody - Protocols**

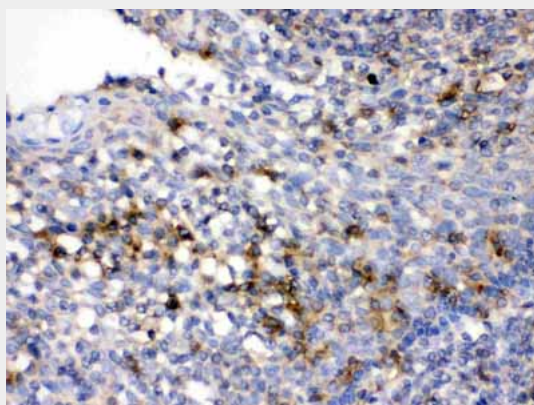
Provided below are standard protocols that you may find useful for product applications.

- [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 .

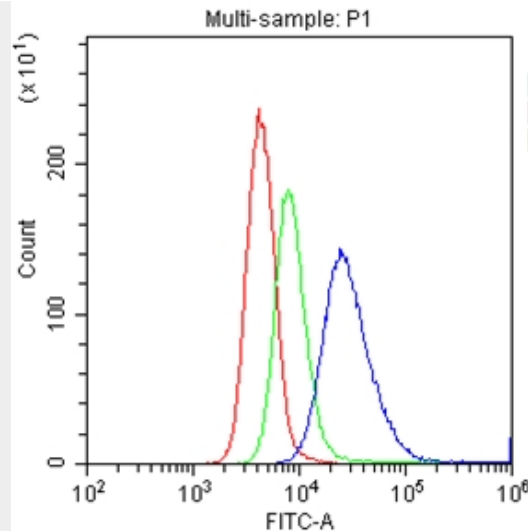


Figure 3. Flow Cytometry analysis of U937 cells using anti-CD33 antibody (ABO12617). Overlay histogram showing U937 cells stained with ABO12617 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD33 Antibody (ABO12617,  $1\frac{1}{4}\mu\text{g}/1 \times 10^6$  cells) for 30 min at  $20^\circ\text{C}$ . DyLight<sup>®</sup>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  $20^\circ\text{C}$ . 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.