

**CD33 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13541C**

**Specification**

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**CD33 Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P20138</a>
Other Accession	<a href="#">NP_001763.3</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	39825
Antigen Region	88-117

**CD33 Antibody (Center) - 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

**Target/Specificity**

This CD33 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-117 amino acids from the Central region of human CD33.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CD33 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**CD33 Antibody (Center) - 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

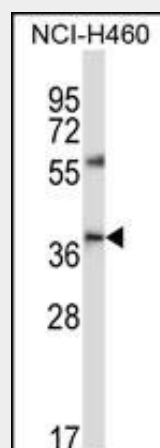
Monocytic/myeloid lineage cells. In the brain, CD33 is mainly expressed on microglial cells

### CD33 Antibody (Center) - Protocols

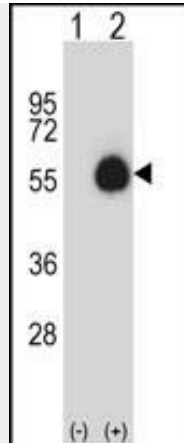
Provided below are standard protocols that you may find useful for product applications.

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

### CD33 Antibody (Center) - Images



CD33 Antibody (Center) (Cat. #AP13541c) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the CD33 antibody detected the CD33 protein (arrow).



Western blot analysis of CD33 (arrow) using rabbit polyclonal CD33 Antibody (Center) (Cat. #AP13541c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CD33 gene.

### **CD33 Antibody (Center) - Background**

Putative adhesion molecule of myelomonocytic-derived cells that mediates sialic-acid dependent binding to cells. Preferentially binds to alpha-2,6-linked sialic acid. The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface. In the immune response, may act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules. Induces apoptosis in acute myeloid leukemia (in vitro).

### **CD33 Antibody (Center) - References**

- Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
- Davila, S., et al. Genes Immun. 11(3):232-238(2010)
- Akahane, K., et al. Leukemia 24(4):865-869(2010)
- Shamsasenjan, K., et al. Int. J. Hematol. 89(3):310-318(2009)
- Bertram, L., et al. Am. J. Hum. Genet. 83(5):623-632(2008)