

# CD33 Polyclonal Antibody

Catalog # AP73767

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P20138</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	39825

## Additional Information

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<b>Gene ID</b>	945
<b>Other Names</b>	CD33; SIGLEC3; Myeloid cell surface antigen CD33; Sialic acid-binding Ig-like lectin 3; Siglec-3; gp67; CD33
<b>Dilution</b>	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A
<b>Format</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
<b>Storage Conditions</b>	-20°C

## Protein Information

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<b>Name</b>	CD33
<b>Synonyms</b>	SIGLEC3
<b>Function</b>	<p>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="#">10611343</a>, PubMed:<a href="#">11320212</a>, PubMed:<a href="#">15597323</a>). Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans (PubMed:<a href="#">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="#">10887109</a>, PubMed:<a href="#">28325905</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="#">10206955</a>, PubMed:<a href="#">10556798</a>, PubMed:<a href="#">10887109</a>). In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules (PubMed:<a href="#">10206955</a>, PubMed:<a href="#">10887109</a>). One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K</p>

(PubMed:[15597323](#)).

## Cellular Location

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

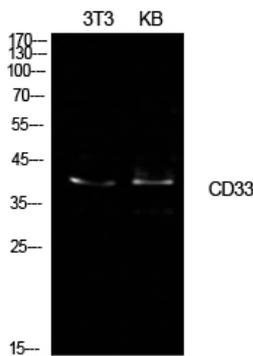
## Tissue Location

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

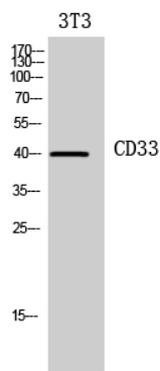
## Background

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 sialylated 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](#)).

## Images



Western Blot analysis of NIH-3T3, KB cells using CD33 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Western Blot analysis of 3T3 cells using CD33 Polyclonal Antibody. Secondary antibody was diluted at 1:20000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.