10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-CD33 Antibody

Catalog # AP95737

Product Information

Application	WB, IHC, FC
Primary Accession	P20138
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	39825

Additional Information

Gene ID	945
Other Names	SIGLEC3; Myeloid cell surface antigen CD33; SialIC, acid-binding Ig-like lectin 3; Siglec-3; gp67; CD33
Target/Specificity	Recombinant fusion protein of human CD33 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200)
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

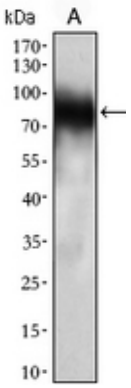
Protein Information

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

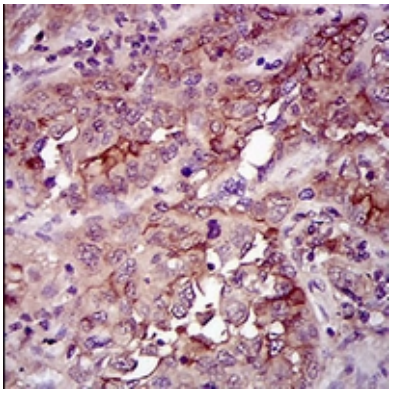
(PubMed:15597323).

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

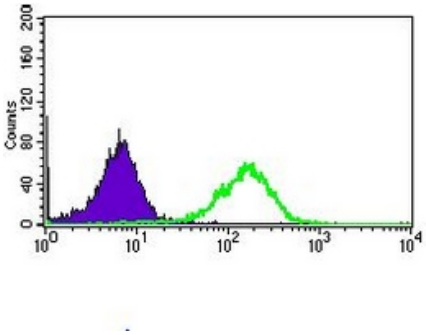
Images



Western blot analysis of CD33 expression in THP1 (A) whole cell lysates. (Predicted band size: 40 kD; Observed band size: 80 kD)



Immunohistochemical analysis of CD33 staining in human enaometrium formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Flow cytometric analysis of HepG2 cells using Anti-CD33 Antibody (green) and negative control (red).

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