

**CD33 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2309a****Specification****CD33 Antibody - Product Information**

Application	<b>E, WB, IHC</b>
Primary Accession	<a href="#">P20138</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>12kDa KDa</b>

**Description**

DNAL4 is a component of the dynein motor complex

**Immunogen**

Purified recombinant fragment of human DNAL4 (AA: 1-105) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**CD33 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

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

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

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

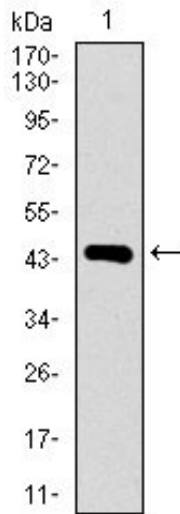
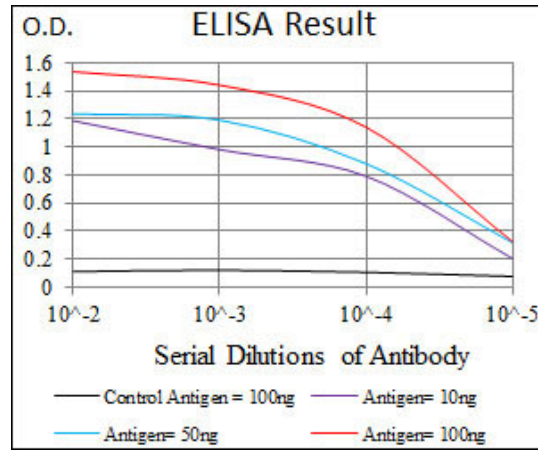


Figure 1: Western blot analysis using DNAL4 mAb against human DNAL4 recombinant protein. (Expected MW is 44.7 kDa)

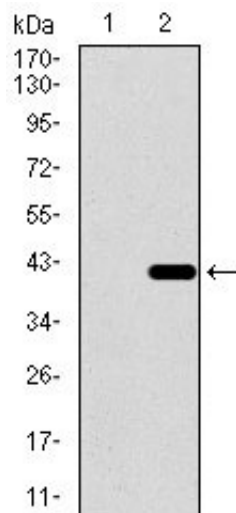


Figure 2: Western blot analysis using DNAL4 mAb against HEK293 (1) and DNAL4 (AA: 1-105)-hIgGFc transfected HEK293 (2) cell lysate.

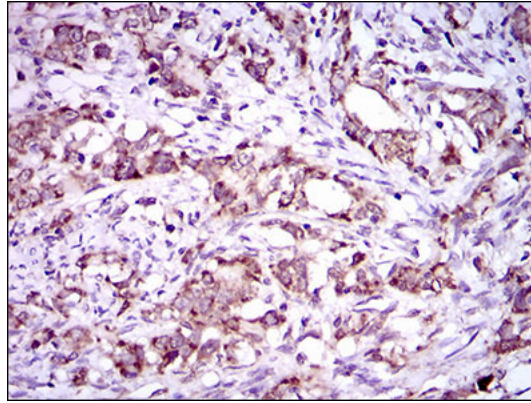


Figure 3: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using DNAL4 mouse mAb with DAB staining.

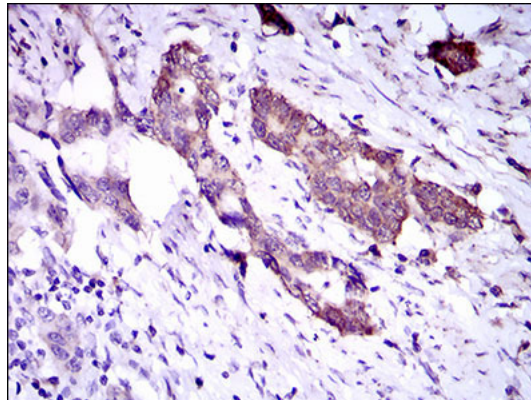


Figure 4: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using DNAL4 mouse mAb with DAB staining.

#### CD33 Antibody - References

1. J Neurosci. 2001 Feb 1;21(3):RC125.