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CD33 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2309a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P20138
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2C6B7
Isotype	IgG1
Calculated MW	39825
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

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	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1:10~50 E~~1/10000
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.

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

References

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

Images

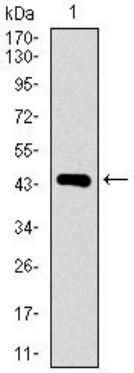


Figure 1: Western blot analysis using DNAL4 mAb against human DNAL4 recombinant protein. (Expected MW is 44.7 kDa)

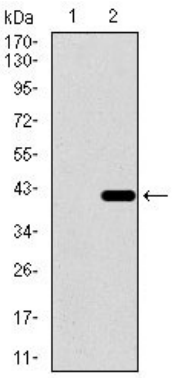


Figure 2: Western blot analysis using DNAL4 mAb against HEK293 (1) and DNAL4 (AA: 1-105)-hIgGFc transfected HEK293 (2) cell lysate.

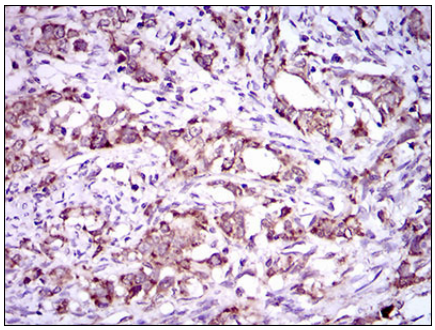


Figure 3: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using DNAL4 mouse mAb with DAB staining.

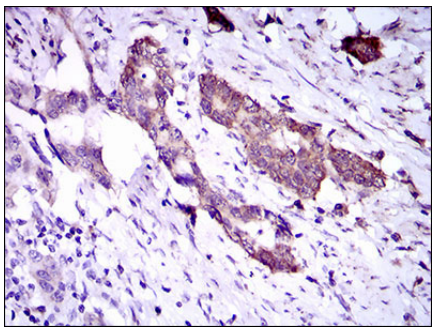


Figure 4: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using DNAL4 mouse mAb with DAB staining.

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