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CD5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1750a

Product Information

Application	WB, FC, E
Primary Accession	P06127
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6A11
Isotype	IgG1
Calculated MW	54578
Description	The human cd5 gene has two alternative exons 1: exon 1A (E1A) which encodes the full-length (FL) CD5 protein and exon 1B (E1B) which encodes a truncated (TR) isoform. The FL variant of CD5 protein is translocated to the plasma membrane, while its TR variant is retained in the cytoplasm.
Immunogen	Purified recombinant fragment of human CD5 (AA: 27-233) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	921
Other Names	T-cell surface glycoprotein CD5, Lymphocyte antigen T1/Leu-1, CD5, CD5, LEU1
Dilution	WB~~1/250 FC~~1/200 - 1/400 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	CD5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD5
Synonyms	LEU1
Function	Lymphoid-specific receptor expressed by all T-cells and in a subset of B-cells known as B1a cells. Plays a role in the regulation of TCR and BCR signaling,

thymocyte selection, T-cell effector differentiation and immune tolerance. Acts by interacting with several ligands expressed on B-cells such as CD5L or CD72 and thereby plays an important role in contact-mediated, T-dependent B-cell activation and in the maintenance of regulatory T and B-cell homeostasis. Functions as a negative regulator of TCR signaling during thymocyte development by associating with several signaling proteins including LCK, CD3Z chain, PI3K or CBL (PubMed:1384049, PubMed:1385158). Mechanistically, co- engagement of CD3 with CD5 enhances phosphorylated CBL recruitment leading to increased VAV1 phosphorylation and degradation (PubMed:23376399). Modulates B-cell biology through ERK1/2 activation in a Ca(2+)-dependent pathway via the non-selective Ca(2+) channel TRPC1, leading to IL-10 production (PubMed:27499044).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P13379}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P13379}

References

1.Crit Rev Immunol. 2011;31(1):31-42.2.Blood. 2011 Dec 1;118(23):6107-14.

Images

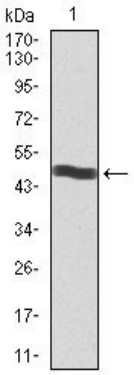


Figure 1: Western blot analysis using CD5 mAb against human CD5 recombinant protein. (Expected MW is 48.3 kDa)

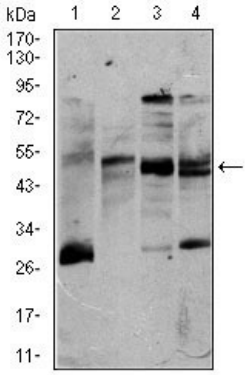


Figure 2: Western blot analysis using CD5 mouse mAb against K562 (1), Jurkat (2), Raji (3), and MOLT4 (4) cell lysate.

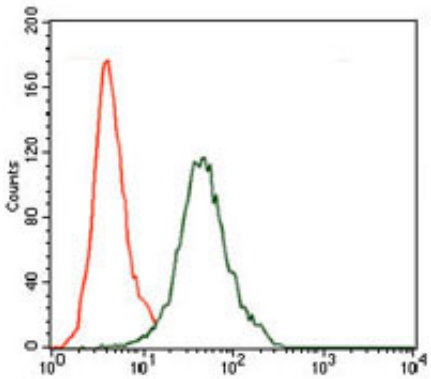


Figure 3: Flow cytometric analysis of Jurkat cells using CD5 mouse mAb (green) and negative control (red).

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