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TCL1A Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1985a

Product Information

Application	WB, FC, E
Primary Accession	P56279
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2E3A5
Isotype	IgG1
Calculated MW	13460
Description	Overexpression of the TCL1 gene in humans has been implicated in the development of mature T cell leukemia, in which chromosomal rearrangements bring the TCL1 gene in close proximity to the T-cell antigen receptor (TCR)-alpha (MIM 186880) or TCR-beta (MIM 186930) regulatory elements (summarized by Virgilio et al., 1998 [PubMed 9520462]). In normal T cells TCL1 is expressed in CD4-/CD8- cells, but not in cells at later stages of differentiation. TCL1 functions as a coactivator of the cell survival kinase AKT (MIM 164730) (Laine et al., 2000 [PubMed 10983986]).
Immunogen	Purified recombinant fragment of human TCL1A (AA: 10-104) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide.

Additional Information

Gene ID	8115
Other Names	T-cell leukemia/lymphoma protein 1A, Oncogene TCL-1, Oncogene TCL1, Protein p14 TCL1, TCL1A, TCL1
Dilution	WB~~1/500 - 1/2000 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	TCL1A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TCL1A

Synonyms	TCL1
Function	Enhances the phosphorylation and activation of AKT1, AKT2 and AKT3. Promotes nuclear translocation of AKT1. Enhances cell proliferation, stabilizes mitochondrial membrane potential and promotes cell survival.
Cellular Location	Cytoplasm. Nucleus. Microsome. Endoplasmic reticulum. Note=Microsomal fraction
Tissue Location	Restricted in the T-cell lineage to immature thymocytes and activated peripheral lymphocytes. Preferentially expressed early in T- and B-lymphocyte differentiation

Background

Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in protein synthesis within the mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that the latter contain a 5S rRNA. Among different species, the proteins comprising the mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a protein identified as belonging to both the 28S and the 39S subunits. Alternative splicing results in multiple transcript variants. Pseudogenes corresponding to this gene are found on chromosomes 4q, 6p, 6q, 7p, and 15q. ;

References

1. Blood. 2012 Aug 23;120(8):1613-23.2. Histopathology. 2010 Jul;57(1):152-7.

Images

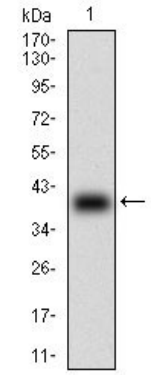


Figure 1: Western blot analysis using TCL1A mAb against human TCL1A (AA: 10-104) recombinant protein. (Expected MW is 37.3 kDa)

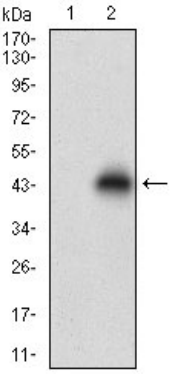
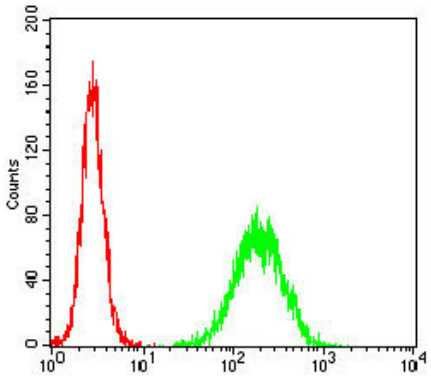


Figure 2: Western blot analysis using TCL1A mAb against HEK293 (1) and TCL1A (AA: 10-104)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Flow cytometric analysis of Hela cells using TCL1A mouse mAb (green) and negative control (red).



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