abcam

ab167133

APC Anti-Tcl1 antibody [1-21]

Anti-Tcl1 antibody [1-21] conjugated to APC - suitable for flow cytometry, and reacts with human samples. Clone [44197] is a mouse monoclonal antibody.

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Key facts

Isotype	IgG2b
Host species	Mouse
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	pH: 7.2 Constituents: PBS, 0.2% BSA, 0.09% Sodium chloride
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human TCL1A. The exact immunogen used to generate this antibody is proprietary information. Database link P56279
Clone number	1-21
Purification technique	Affinity purification Protein G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	5 µL for 10^6 Cells
Notes	ab91534 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Target data

See full target information TCL1A

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The TCL1 (T-cell leukemia/lymphoma protein 1) also known as TCL1A is an important protein involved in cellular processes. TCL1 has a molecular mass of approximately 14 kDa and plays roles in signal transduction pathways. The protein is expressed in various tissues including the thymus lymph nodes and spleen. TCL1 is particularly important in T-cell development and function. It functions at a mechanistic level by interacting with other proteins thereby influencing cell signaling pathways essential for lymphocyte proliferation and survival.
Biological function summary	TCL1 enhances the activity of the AKT kinase an important component of cellular signaling that modulates cell growth and survival. This protein does not form any large complex but acts through AKT phosphorylation. The activation of TCL1 leads to the promotion of cell proliferation and prevention of apoptosis especially in lymphocytes. The regulation of these cellular activities by TCL1 suggests its important role in the development of the immune system.
Pathways	The AKT signaling pathway is significantly influenced by TCL1 controlling cell growth division and apoptosis. The interaction of TCL1 with AKT activates the PI3K/AKT pathway an important signal transduction pathway promoting survival and growth in response to extracellular signals. TCL1 indirectly affects the mTOR signaling pathway through its modulation of AKT affecting protein synthesis and

	cell metabolism. Both pathways emphasize the broad role of TCL1 in maintaining normal cellular functions and growth regulation.
Associated diseases and disorders	The overexpression or mutation of TCL1 can lead to malignancies such as T-cell leukemia and B-cell lymphoma. In these cancers abnormal TCL1 activity results in enhanced cell survival and proliferation contributing to tumorigenesis. In leukemia TCL1 directly interacts with AKT and its dysregulation becomes pathogenic. Research continues to investigate the involvement of TCL1 in oncogenesis and how its association with AKT and other signaling molecules like mTOR contributes to cancer progression. Understanding these interactions could potentially offer new therapeutic targets for treating related malignancies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

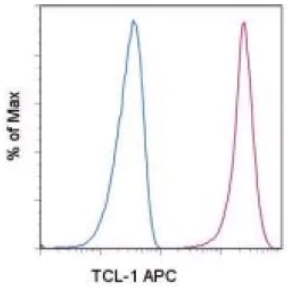
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry - APC Anti-Tcl1 antibody [1-21] (ab167133)

Tcl1 Flow Cytometry staining using mouse Anti-Tcl1 antibody

Flow cytometry analysis showing intracellular staining of Daudi cells using Mouse IgG2b kappa Isotype Control APC (blue) or ab167133 at 5 µl (0.25µg) per test dilution (purple). Total viable cells were used for analysis.

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