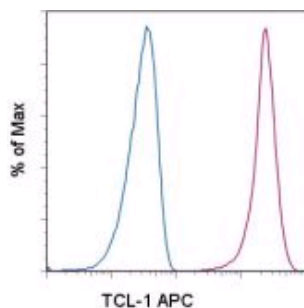


Anti-Human TCL1 APC

Catalog Number: 17-6699

Also Known As: T Cell Leukemia/Lymphoma 1, TCL-1

RUO: For Research Use Only



Intracellular staining of the Daudi cell line with Mouse IgG2b κ Isotype Control APC (cat. 17-4732) (blue histogram) or Anti-Human TCL1 APC (purple histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Human TCL1 APC


REF Catalog Number: 17-6699

Clone: eBio1-21 (1-21)

Concentration: 5 μ l (0.25 μ g)/test


Host/Isotype: Mouse IgG2b, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

 Caution, contains Azide

Description

The eBio1-21 antibody reacts with human T cell leukemia/lymphoma 1 (TCL1), a 14 kDa proto-oncogene product with a suggested role in intracellular regulation of T cell signalling. TCL1 was identified as the oncogene located at the 14q32.1 chromosome breakpoint region in T-cell prolymphocytic leukemia (T-PLL). In T-PLL, TCL1 is overexpressed as a result of an inversion or a reciprocal translocation, by juxtaposition to the T-cell receptor promoter/enhancer elements. TCL1 binds to the pleckstrin homology domain of Akt (protein kinase B) family proteins, which facilitates Akt dimerization and activity. By increasing Akt activity TCL1 may enhance the serine/threonine phosphorylation of major Akt signaling substrates, such as I κ B complex, mTOR, BAD, p70S6 kinase, FOXO transcription factors, and GSK3 β . These substrates regulate cellular differentiation, growth, survival, and metabolism.

Besides its tumorigenic role in T-PLL, TCL1 is normally expressed in the CD3-CD4-CD8- subset of thymic precursors in the T cell lineage, the plasmacytoid subset of dendritic cells, stimulated (not resting) mature T cells, and B cells up to the germinal center stage of maturation. TCL1 is inappropriately expressed by chromosome rearrangements that lead to pre-malignant clonal T cell expansions and mature T cell tumors. TCL1 shows a regulated expression pattern in chronic lymphocytic leukemia (CLL).

Applications Reported

This eBio1-21 (1-21) antibody has been reported for use in flow cytometric analysis.

Applications Tested

This eBio1-21 (1-21) antibody has been pre-titrated and tested by flow cytometric analysis of human cell line. This can be used at 5 μ l (0.25 μ g)/per test. A test is defined as the amount (μ g)/test of antibody that will stain a cell sample in a final volume of 100 μ l. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

References

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Herling, M., et al. 2006. TCL1 shows a regulated expression pattern in chronic lymphocytic leukemia that correlates with molecular subtypes and proliferative state. *Leukemia*. 20: 280-285. (PubMed)

Hoyer, K., et al. 2005. T cell leukemia-1 modulates TCR signal strength and IFN-g levels through phosphatidylinositol 3-kinase and protein kinase c pathway activation. *J. Immunol*. 175: 864-873. (PubMed)

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Takizawa J, Suzuki R, Kuroda H, Utsunomiya A, Kagami Y, Joh T, Aizawa Y, Ueda R, Seto M. Expression of the TCL1 gene at 14q32 in B-cell malignancies but not in adult T-cell leukemia. *Jpn J Cancer Res*. 1998 Jul;89(7):712-8. (PubMed)

Related Products

17-4732 Mouse IgG2b K Isotype Control APC

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