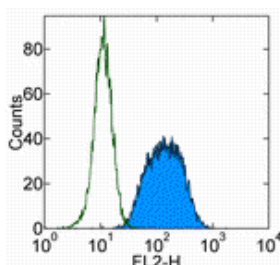


Anti-Human TCL1 PE

Catalog Number: 12-6699

Also Known As: T Cell Leukemia/Lymphoma 1, TCL1

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of Daudi cells with 0.125 ug of Mouse IgG2a kappa Isotype Control PE (cat. 12-4732) (open histogram) or 0.125 ug of Anti-Human TCL1 PE (filled histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Human TCL1 PE

REF **Catalog Number:** 12-6699

Clone: eBio1-21 (1-21)


Concentration:

(ug): 0.2 mg/mL

(test*): 5 uL (0.125 ug)/test


Host/Isotype: Mouse IgG2b, kappa

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.

 **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 Ikk complex, mTOR, BAD, p70S6 kinase, FOXO transcription factors, and GSK3β. 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 intracellular staining followed by flow cytometric analysis.

Applications Tested

This eBio1-21 (1-21) antibody is offered in 2 formats:

- µg size: has been tested by intracellular staining followed by flow cytometric analysis of Daudi cells. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

- test size: has been pre-titrated and tested by intracellular staining followed by flow cytometric analysis of Daudi cells. This can be used at 5 µL (0.125 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

References

Herling M, Patel KA, Teitell MA, Konopleva M, Ravandi F, Kobayashi R, Jones D. High TCL1 expression and intact T-cell receptor signaling define a hyperproliferative subset of T-cell prolymphocytic leukemia. *Blood*. 2008 Jan 1;111(1):328-37. Epub 2007 Sep 21. (eBio1-21, IHC, WB PubMed)

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)

Herling, M., et al. 2003. TCL1 expression in plasmacytoid dendritic cells (DC2s) and the related CD4+CD56+ blastic tumors of skin. *Blood*. 101: 5007-5009. (PubMed)

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

11-6695 Anti-Human/Mouse ZAP-70 FITC (1E7.2)

11-7761 Anti-Mouse SLP-76 FITC (MS76)

12-4732 Mouse IgG2b K Isotype Control PE

13-5826 Anti-Human BAMBI Biotin (4E8)

13-5983 Anti-Human CD274 (B7-H1) Biotin (MIH1)

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