

## Anti- Human TCL-1 (1-21)

Fluorochrome	Reference	Size
APC	TCL1A-100T	100 test

### PRODUCT DESCRIPTION

**Clone:** 1-21

**Isotype:** Mouse IgG2b, kappa

**Tested application:** flow cytometry

**Immunogen:** The anti-TCL1 monoclonal antibody derives from outer  $\alpha$ -loop region of TCL1 peptide

**Species reactivity:** Human

**Storage instruction:** store in the dark at 2-8 °C

**Storage buffer:** aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN<sub>3</sub>).

**Recommended usage:** Immunostep's TCL1, clone 1-21, is a monoclonal antibody intended for the identification of immature cortical thymocytes, activated peripheral T-cells, pro-B cells, and naive mantle zone B cells of peripheral lymphoid tissues using flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10<sup>6</sup> cells.

**Presentation:** liquid

**Source:** Supernatant proceeding from an *in vitro* cell culture of a cell hybridoma.

**Purification:** Affinity chromatography.

### ANTIGEN DETAILS

**Large description:** TCL1, also known as T-cell leukemia/lymphoma protein 1A, protein p14 TCL1 and oncogene TCL-1, is a 14kD beta-barrel protein that was originally identified on the basis of its association with T-cell polymphocytic leukemia (T-PLL). Activated by the T-cell receptor enhancer through *inv(14)(q11;q32.1)* or *t(14;14)(q11;q32.1)*, TCL1 is normally expressed in immature cortical thymocytes, activated peripheral T-cells, pro-B cells, and naive mantle zone B cells of peripheral lymphoid tissues, but not in post-germinal center (GC) memory B cells and plasma cells. Akt and TCL1 interact via Akt's pleckstrin homology domain to form hetero-oligomers at the leaflet of the inner plasma membrane stimulating the protein kinase C-mitogen activated protein kinase-extracellular signal-related kinase (PKC-MAPK-ERK) signal transduction pathway. TCL1 also inhibits activation-induced cell death in T-cells by blocking PKC $\theta$ . In addition to T-PLL dysregulation is implicated in such B-cell neoplasias as lymphoblastic lymphoma, chronic lymphocytic leukemia (CLL) and Burkitt lymphoma.<sup>(1-5)</sup>

**Other names:** T-cell leukemia/lymphoma protein 1A, Protein p14 TCL1, Oncogene TCL1, TCL-1

**Gene ID:** 8115

**Molecular weight:** 14 kDa

Please, refer to [www.immunostep.com](http://www.immunostep.com) technical support for more information.

### WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties. Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

### REFERENCES

1. Narducci MG, Pescarmona E, Lazzeri C, Signoretti S, Lavinia AM, Remotti D, et al. Regulation of TCL1 expression in B- and T-cell lymphomas and reactive lymphoid tissues. *Cancer Res* 2000 Apr 15;60(8):2095-100.
2. Pekarsky Y, Hallas C, Croce CM. The role of TCL1 in human T-cell leukemia. *Oncogene* 2001 Sep 10;20(40):5638-43.
3. Teitell MA. The TCL1 family of oncoproteins: co-activators of transformation. *Nat Rev Cancer* 2005 Aug;5(8):640-8.
4. Shen RR, Ferguson DO, Renard M, Hoyer KK, Kim U, Hao X, et al. Dysregulated TCL1 requires the germinal center and genome instability for mature B-cell transformation. *Blood* 2006 Sep 15;108(6):1991-8.
5. Despouy G, Joiner M, Le Toriellec E, Weil R, Stern MH. The TCL1 oncoprotein inhibits activation-induced cell death by impairing PKC $\theta$  and ERK pathways. *Blood* 2007 Dec 15;110(13):4406-16.

### MANUFACTURED BY



**Immunostep S.L**

Avda. Universidad de Coimbra, s/n  
Cancer Research Center (C.I.C.)  
Campus Miguel de Unamuno  
37007 Salamanca (Spain)  
Tel. (+34) 923 294 827  
[www.immunostep.com](http://www.immunostep.com)