# TCL-1A (M-16): sc-11160



The Power to Question

#### **BACKGROUND**

T-cell Leukemia/Lymphoma Protein 1A (TCL-1A), also known as p14TCL1 is a product of the TCL1 gene that is involved in T-cell prolymphocytic leukemia (T-PLL). T-PLL is a rare form of mature T-cell leukemia, which is consistently associated with chromosomal rearrangements characterized by the juxtaposition of the TCRA locus on chromosome 14q11 and the TCL1A gene on 14q32.1. TCL-1A is a member of a unique family of  $\beta$  barrel proteins that bind small hydrophobic ligands and function in cell regulation. TCL-1A is an all- $\beta$  protein containing an eight-stranded antiparallel  $\beta$  barrel which consists of two four-stranded  $\beta$ -meander motifs. The two motifs are related by a twofold axis and connected by a long loop. TCL-1A forms a tight crystallographic dimer. TCL-1A is expressed in pre-B cells, in immature thymocytes, at low levels in activated T cells, and in the cytoplasm.

## **REFERENCES**

- Gritti, C., Dastot, H., Soulier, J., Janin, A., Daniel, M.T., Madani, A., Grimber, G., Briand, P., Sigaux, F. and Stern, M.H. 1998. Transgenic mice for MTCP-1 develop T cell prolymphocytic leukemia. Blood 92: 368-373.
- 2. Fu, Z.Q., Du Bois, G.C., Song, S.P., Kulikovskaya, I., Virgilio, L., Rothstein, J.L., Croce, C.M., Weber, I.T. and Harrison, R.W. 1998. Crystal structure of MTCP-1: implications for role of TCL-1 and MTCP-1 in T cell malignancies. Proc. Natl. Acad. Sci. USA 95: 3413-3418.
- 3. Hoh, F., Yang, Y.S., Guignard, L., Padilla, A., Stern, M.H., Lhoste, J.M. and van Tilbeurgh, H. 1998. Crystal structure of p14TCL-1, an oncogene product involved in T cell prolymphocytic leukemia, reveals a novel  $\beta$ -barrel topology. Structure 6: 147-155.
- 4. Du Bois, G.C., Song SP., Kulikovskaya I., Virgilio L., Varnum J., Germann M.W., Croce, C.M. 1998. Purification and characterization of recombinant forms of TCL-1 and MTCP-1 proteins. Protein Expr. Purif. 12: 215-225.
- Yang, Y.S., Guignard, L., Padilla, A., Hoh, F., Strub, M.P., Stern, M.H., Lhoste, J.M. and Roumestand, C. 1998. Solution structure of the recombinant human oncoprotein p13MTCP-1. J. Biomol. NMR 11: 337-354.

# CHROMOSOMAL LOCATION

Genetic locus: Tcl1 (mouse) mapping to 12 E.

# **SOURCE**

TCL-1A (M-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TCL-1A of mouse origin.

#### **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11160 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

TCL-1A (M-16) is recommended for detection of TCL-1A of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TCL-1A siRNA (m): sc-42989, TCL-1A shRNA Plasmid (m): sc-42989-SH and TCL-1A shRNA (m) Lentiviral Particles: sc-42989-V.

Molecular Weight of TCL-1A: 14 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **TCL-1A** (**A-6**): **sc-393436**, our highly recommended monoclonal aternative to TCL-1A (M-16). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **TCL-1A** (**A-6**): **sc-393436**.

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