

# TCL-1A (F-14): sc-11158

## 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., et al. 1998. Transgenic mice for MTCP1 develop T cell prolymphocytic leukemia. *Blood* 92: 368-373.
- Fu, Z.Q., et al. 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.
- Hoh, F., et al. 1998. Crystal structure of p14TCL1, an oncogene product involved in T cell prolymphocytic leukemia, reveals a novel  $\beta$ -barrel topology. *Structure* 6: 147-155.
- Du Bois, G.C., et al. 1998. Purification and characterization of recombinant forms of TCL-1 and MTCP-1 proteins. *Protein Expr. Purif.* 12: 215-225.

## CHROMOSOMAL LOCATION

Genetic locus: Tcl1a (mouse) mapping to 12 A.

## SOURCE

TCL-1A (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TCL-1A of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-11158 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

TCL-1A (F-14) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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.

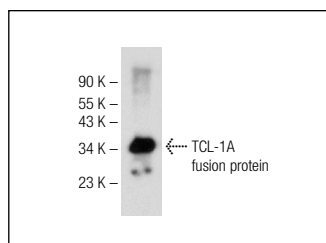
Molecular Weight of TCL-1A: 14 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234 or HeLa whole cell lysate: sc-2200.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TCL-1A (F-14): sc-11158. Western blot analysis of mouse recombinant TCL-1A fusion protein.

## RESEARCH USE

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

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Try **TCL-1A (A-6): sc-393436**, our highly recommended monoclonal alternative to TCL-1A (F-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TCL-1A (A-6): sc-393436**.