

TCL-1A (C-15): sc-11156

BACKGROUND

T cell leukemia/lymphoma protein 1A (TCL-1A), also known as p14TCL-1, 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 TCL1 gene on 14q32.1. TCL-1A is a member of a unique family of β -barrel proteins that bind small hydrophobic ligands and function in cell regulation. TCL-1A is an all- β protein containing an eight-stranded antiparallel β -barrel which consists of two four-stranded β -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 MTCP-1 develop T cell prolymphocytic leukemia. *Blood* 92: 368-373.
- Yang, Y.S., et al. 1998. Solution structure of the recombinant human oncoprotein p13MTCP-1. *J. Biomol. NMR* 11: 337-354.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: TCL1A (human) mapping to 14q32.13.

SOURCE

TCL-1A (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TCL-1A of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-11156 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TCL-1A (C-15) is recommended for detection of TCL-1A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 (h): sc-42988, TCL-1A shRNA Plasmid (h): sc-42988-SH and TCL-1A shRNA (h) Lentiviral Particles: sc-42988-V.

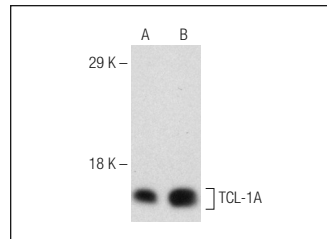
Molecular Weight of TCL-1A: 14 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, JM1 whole cell lysate: sc-364233 or Ramos whole cell lysate: sc-2216.

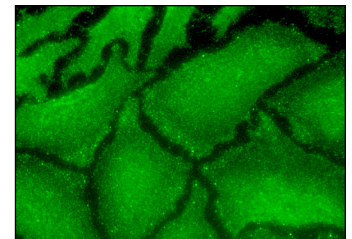
RECOMMENDED SECONDARY REAGENTS

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 (C-15): sc-11156. Western blot analysis of TCL-1A expression in JM1 (A) and NAMALWA (B) whole cell lysates.



TCL-1A (C-15): sc-11156. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic, membrane and nuclear localization.

SELECT PRODUCT CITATIONS

- Pekarsky, Y., et al. 2008. TCL-1 functions as a transcriptional regulator and is directly involved in the pathogenesis of CLL. *Proc. Natl. Acad. Sci. USA* 105: 19643-19648.

STORAGE

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

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** or **TCL-1A (1-21): sc-32331**, our highly recommended monoclonal alternatives to TCL-1A (C-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TCL-1A (A-6): sc-393436**.