

TCL-1A (H-70): sc-33550

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 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., 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 MTCP1 develop T cell prolymphocytic leukemia. *Blood* 92: 368-373.
- 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.
- Hoh, F., Yang, Y.S., Guignard, L., Padilla, A., Stern, M.H., Lhoste, J.M. and van Tilbeurgh, H. 1998. Crystal structure of p14^{TCL1}, an oncogene product involved in T cell prolymphocytic leukemia, reveals a novel β -barrel topology. *Structure* 6: 147-155.
- Du Bois, G.C., Song, S.P., Kulikovskaya, I., Virgilio, L., Varnum, J., Germann, M.W. and 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 p13MTCP1. *J. Biomol. NMR* 11: 337-354.

CHROMOSOMAL LOCATION

Genetic locus: TCL1A (human) mapping to 14q32.1.

SOURCE

TCL-1A (H-70) is a rabbit polyclonal antibody raised against amino acids 1-70 mapping at the N-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.

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.

APPLICATIONS

TCL-1A (H-70) 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.

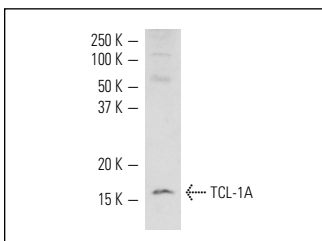
Molecular Weight of TCL-1A: 14 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TCL-1A (H-70): sc-33550. Western blot analysis of TCL-1A expression in NAMALWA whole cell lysate.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **TCL-1A (A-6): sc-393436** or **TCL-1A (1-21): sc-32331**, our highly recommended monoclonal alternatives to TCL-1A (H-70). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TCL-1A (A-6): sc-393436**.