

TCL-1B1/5 (A-16): sc-11164

BACKGROUND

T cell leukemia/lymphoma protein 1B (TCL-1B), also designated TML1, TCL/MTCP1-like 1, syncytiotrophoblast-specific protein and SYN-1, is involved in T cell prolymphocytic leukemia (T-PLL). TCL-1B is located within the region on human chromosome 14q32.1 which, in T cell leukemias and lymphomas, is frequently involved in chromosomal translocations and inversions with one of the T cell receptor loci. TCL-1B is activated by chromosomal rearrangements involving the TCL1 locus. In mouse, TCL-1B is represented by five homologs, TCL-1B1–TCL-1B5. The crystal structure of TCL-1B suggests that it may play a role in the transport of small molecules such as retinoids, nucleotides and fatty acids. TCL-1B is found in both the nucleus and the cytoplasm of normal bone marrow and peripheral lymphocytes.

REFERENCES

1. Fu, T.B., Virgilio, L., Narducci, M.G., Facchiano, A., Russo, G. and Croce, C.M. 1994. Characterization and localization of the TCL-1 oncogene product. *Cancer Res.* 54: 6297-6301.
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. Sugimoto, J., Hatakeyama, T., Narducci, M.G., Russo, G. and Isobe, M. 1999. Identification of the TCL1/MTCP1-like 1 (TML1) gene from the region next to the TCL1 locus. *Cancer Res.* 59: 2313-2317.
4. Pekarsky, Y., Hallas, C., Isobe, M., Russo, G. and Croce, C.M. 1999. Abnormalities at 14q32.1 in T cell malignancies involve two oncogenes. *Proc. Natl. Acad. Sci. USA* 96: 2949-2951.
5. Hallas, C., Pekarsky, Y., Itoyama, T., Varnum, J., Bichi, R., Rothstein, J. and Croce, C.M. 1999. Genomic analysis of human and mouse TCL1 loci reveals a complex of tightly clustered genes. *Proc. Natl. Acad. Sci. USA* 96: 14418-14423.
6. Pekarsky, Y., Koval, A., Hallas, C., Bichi, R., Tresini, M., Malstrom, S., Russo, G., Tsichlis, P. and Croce, C.M. 2000. Tcl1 enhances Akt kinase activity and mediates its nuclear translocation. *Proc. Natl. Acad. Sci. USA* 97: 3028-3033.

CHROMOSOMAL LOCATION

Genetic locus: Tcl1b1/Tcl1b5 (mouse) mapping to 12 E.

SOURCE

TCL-1B1/5 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TCL-1B1 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-11164 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

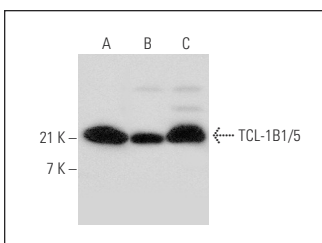
TCL-1B1/5 (A-16) is recommended for detection of TCL-1B1 and TCL-1B5 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, RAW 264.7 whole cell lysate: sc-2211 or PC-12 cell lysate: sc-2250.

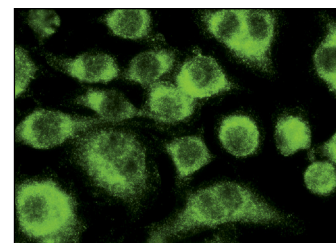
RECOMMENDED SECONDARY REAGENTS

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-1B1/5 (A-16): sc-11164. Western blot analysis of TCL-1B1/5 expression in NIH/3T3 (A), RAW 264.7 (B) and PC-12 (C) whole cell lysates.



TCL-1B1/5 (A-16): sc-11164. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

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.