

# TCL-6 (K-13): sc-240969

## BACKGROUND

TCL-6 (T-cell leukemia/lymphoma protein 6), also known as TNG1 (TCL1 neighboring gene 1 protein), is a 141 amino acid protein that is expressed in many tissues. T-cell leukemias (T-CLL) with rearrangements at chromosome 14q32.1 are suggested to have activated TCL-6. The gene that encodes TCL-6 consists of approximately 42,131 bases and maps to human chromosome 14q32. Housing over 700 genes, chromosome 14 comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

## REFERENCES

- Hallas, C., et al. 1999. Genomic analysis of human and mouse TCL1 loci reveals a complex of tightly clustered genes. *Proc. Natl. Acad. Sci. USA* 96: 14418-14423.
- Saitou, M., et al. 2000. Identification of the TCL6 genes within the breakpoint cluster region on chromosome 14q32 in T-cell leukemia. *Oncogene* 19: 2796-2802.
- Pekarsky, Y., et al. 2001. Molecular basis of mature T-cell leukemia. *JAMA* 286: 2308-2314.
- Avramopoulos, D., et al. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 132B: 9-13.
- Larner, A.J., et al. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. *J. Alzheimers Dis.* 17: 259-265.
- Topic, A., et al. 2009.  $\alpha$ -1-antitrypsin phenotypes in adult liver disease patients. *Ups. J. Med. Sci.* 114: 228-234.

## CHROMOSOMAL LOCATION

Genetic locus: TCL6 (human) mapping to 14q32.13.

## SOURCE

TCL-6 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TCL-6 of human 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-240969 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.

## APPLICATIONS

TCL-6 (K-13) is recommended for detection of TCL-6 isoforms b1, c1 and d1 of human 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); non cross-reactive with TCL-6 isoforms a1, a2 or a3; non cross-reactive with TCL-1A or TCL-1B.

Suitable for use as control antibody for TCL-6 siRNA (h): sc-92082, TCL-6 shRNA Plasmid (h): sc-92082-SH and TCL-6 shRNA (h) Lentiviral Particles: sc-92082-V.

Molecular Weight of TCL-6: 16 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) or donkey anti-goat IgG-TR: sc-2783 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.