

TNK1 (V-20): sc-165759



The Power to Question

BACKGROUND

TNK1 is a 666 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one SH3 domain and one protein kinase domain. Expressed at high levels in fetal lung, liver, brain and kidney and at lower levels in adult ovary, colon, prostate and testis, TNK1 functions to catalyze the ATP-dependent conversion of an L-tyrosine protein to a phosphorylated L-tyrosine protein and is thought to be involved in the negative regulation of cell growth, possibly playing a role in tumor suppression. Additionally, TNK1 may be associated with phospholipid signal transduction and fetal development pathways, further suggesting an important role in growth and development. Multiple isoforms of TNK1 exist and are encoded by a gene which maps to human chromosome 17.

REFERENCES

1. Hoehn, G.T., et al. 1996. Tnk1: a novel intracellular tyrosine kinase gene isolated from human umbilical cord blood CD34⁺/Lin⁻/CD38⁻ stem/progenitor cells. *Oncogene* 12: 903-913.
2. Felschow, D.M., et al. 2000. Characterization of the tyrosine kinase Tnk1 and its binding with phospholipase C-γ1. *Biochem. Biophys. Res. Commun.* 273: 294-301.
3. Cho, H.S., et al. 2000. Cloning and characterization of ntTMK1 gene encoding a TMK1-homologous receptor-like kinase in tobacco. *Mol. Cells* 10: 317-324.
4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608076. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Azoitei, N., et al. 2007. Thirty-eight-negative kinase 1 (TNK1) facilitates TNFα-induced apoptosis by blocking NFκB activation. *Oncogene* 26: 6536-6545.
6. Hoare, S., et al. 2008. Tnk1/Kos1 knockout mice develop spontaneous tumors. *Cancer Res.* 68: 8723-8732.
7. Dephoure, N., et al. 2008. A quantitative atlas of mitotic phosphorylation. *Proc. Natl. Acad. Sci. USA* 105: 10762-10767.

CHROMOSOMAL LOCATION

Genetic locus: TNK1 (human) mapping to 17p13.1; Tnk1 (mouse) mapping to 11 B3.

SOURCE

TNK1 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TNK1 of human 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-165759 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TNK1 (V-20) is recommended for detection of TNK1 of mouse, rat and 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).

TNK1 (V-20) is also recommended for detection of TNK1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TNK1 siRNA (h): sc-93553, TNK1 siRNA (m): sc-154541, TNK1 shRNA Plasmid (h): sc-93553-SH, TNK1 shRNA Plasmid (m): sc-154541-SH, TNK1 shRNA (h) Lentiviral Particles: sc-93553-V and TNK1 shRNA (m) Lentiviral Particles: sc-154541-V.

Molecular Weight of TNK1: 72 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.

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 **TNK1 (H-11): sc-390359**, our highly recommended monoclonal alternative to TNK1 (V-20).