

TANK (B-12): sc-373923

BACKGROUND

The tumor necrosis factor (TNF) receptor superfamily is composed of several type I integral membrane glycoproteins that exhibit homology in their cysteine-rich extracellular domains. Members of this family include TNF-RI and -RII, FAS, OX40, CD27, CD30 and CD40. Ligands for these receptors can be small, secreted proteins such as TNF, or type II integral membrane proteins, such as the CD40 ligand, CD40L. While the signal transduction mechanism of the TNF receptor superfamily is poorly understood, stimulation of cells with either TNF or soluble CD40L has been shown to induce the nuclear translocation of NF κ B. Members of the TRAF family associate with activated TNF-R and CD40 and have been implicated in this process. The discovery of a novel protein, designated TANK, has shed light on the means by which TRAF activation of NF κ B occurs. TANK is not only capable of binding to all three TRAFs, but also of synergizing with TRAF2 to activate the NF κ B signaling cascade. TANK contains a regulatory carboxy-terminal domain that maintains its inactivity in unstimulated cells. Upon its association with TRAF2, the inhibitory effect of this domain is overcome.

REFERENCES

- Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation and death. *Cell* 76: 959-962.
- Cleveland, J.L., et al. 1995. Contenders in FasL/TNF death signaling. *Cell* 81: 479-482.
- Rothe, M., et al. 1995. TRAF2-mediated activation of NF κ B by TNF receptor 2 and CD40. *Science* 269: 1424-1427.
- Baker, S.J., et al. 1996. Transducers of life and death: TNF receptor superfamily and associated proteins. *Oncogene* 12: 1-9.
- McLellan, A.D., et al. 1996. Human dendritic cells activate T lymphocytes via a CD40: CD40 ligand-dependent pathway. *Eur. J. Immunol.* 26: 1204-1210.
- Snapper, C.M., et al. 1996. B cells from p50/NF κ B knockout mice have selective defects in proliferation, differentiation, germ-line CH transcription, and Ig class switching. *J. Immunol.* 156: 183-191.

CHROMOSOMAL LOCATION

Genetic locus: TANK (human) mapping to 2q24.2; Tank (mouse) mapping to 2 C1.3.

SOURCE

TANK (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-26 at the N-terminus of TANK of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-373923 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TANK (B-12) is recommended for detection of TANK of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

TANK (B-12) is also recommended for detection of TANK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TANK siRNA (h): sc-36612, TANK siRNA (m): sc-36613, TANK shRNA Plasmid (h): sc-36612-SH, TANK shRNA Plasmid (m): sc-36613-SH, TANK shRNA (h) Lentiviral Particles: sc-36612-V and TANK shRNA (m) Lentiviral Particles: sc-36613-V.

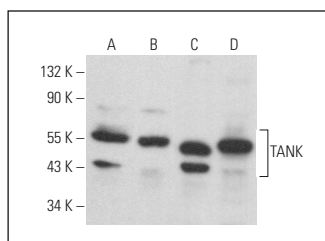
Molecular Weight of TANK: 48 kDa.

Positive Controls: A-10 cell lysate: sc-3806, Ramos cell lysate: sc-2216 or THP-1 cell lysate: sc-2238.

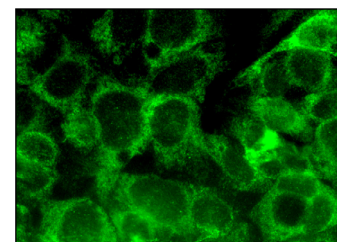
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



TANK (B-12): sc-373923. Western blot analysis of TANK expression in Ramos (A), THP-1 (B), AMJ2-C8 (C) and A-10 (D) whole cell lysates.



TANK (B-12): sc-373923. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

STORAGE

Store at 4 $^{\circ}$ 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.