

# TRB-1 (D-22): sc-130900

## BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. TRB-1 (tribbles homolog 1), also known as C8FW, GIG2 or TRB1, is a 372 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase superfamily. Expressed ubiquitously with highest expression in bone marrow, thyroid gland, skeletal muscle and pancreas, TRB-1 interacts with MAPK kinases and is thought to regulate the activation of MAP kinases, possibly controlling MAP kinase cascades. The gene encoding TRB-1 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

## REFERENCES

1. Wilkin, F., et al. 1997. Characterization of a phosphoprotein whose mRNA is regulated by the mitogenic pathways in dog thyroid cells. *Eur. J. Biochem.* 248: 660-668.
2. Wu, M., et al. 2003. SINK is a p65-interacting negative regulator of NFκB-dependent transcription. *J. Biol. Chem.* 278: 27072-27079.
3. Storlazzi, C.T., et al. 2004. Identification of a commonly amplified 4.3 Mb region with overexpression of C8FW, but not MYC in MYC-containing double minutes in myeloid malignancies. *Hum. Mol. Genet.* 13: 1479-1485.
4. Kiss-Toth, E., et al. 2004. Human tribbles, a protein family controlling mitogen-activated protein kinase cascades. *J. Biol. Chem.* 279: 42703-42708.
5. Hegedus, Z., et al. 2006. Tribbles: novel regulators of cell function; evolutionary aspects. *Cell. Mol. Life Sci.* 63: 1632-1641.

## CHROMOSOMAL LOCATION

Genetic locus: TRB1 (human) mapping to 8q24.13; Trib1 (mouse) mapping to 15 D1.

## SOURCE

TRB-1 (D-22) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of TRB-1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

TRB-1 (D-22) is recommended for detection of TRB-1 of mouse and human 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TRB-1 siRNA (h): sc-77704, TRB-1 siRNA (m): sc-154620, TRB-1 shRNA Plasmid (h): sc-77704-SH, TRB-1 shRNA Plasmid (m): sc-154620-SH, TRB-1 shRNA (h) Lentiviral Particles: sc-77704-V and TRB-1 shRNA (m) Lentiviral Particles: sc-154620-V.

Molecular Weight of human TRB-1: 41 kDa.

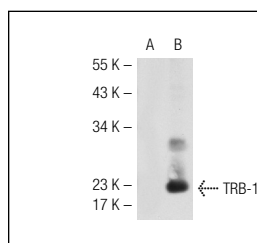
Molecular Weight of mouse TRB-1 isoforms: 41/24 kDa.

Positive Controls: TRB-1 (m): 293T Lysate: sc-124268 or T-47D cell lysate: sc-2293.

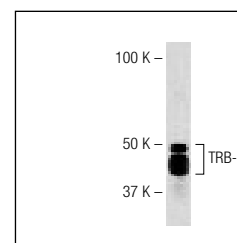
## RECOMMENDED SECONDARY REAGENTS

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).

## DATA



TRB-1 (D-22): sc-130900. Western blot analysis of TRB-1 expression in non-transfected: sc-117752 (A) and mouse TRB-1 transfected: sc-124268 (B) 293T whole cell lysates.



TRB-1 (D-22): sc-130900. Western blot analysis of TRB-1 expression in T-47D whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.