

TRB-1 (E-14): sc-87485

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

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2. Wu, M., et al. 2003. SINK is a p65-interacting negative regulator of NF κ B-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.
6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609461. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

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

SOURCE

TRB-1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TRB-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-87485 P, (100 μ 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

TRB-1 (E-14) 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 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).

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.

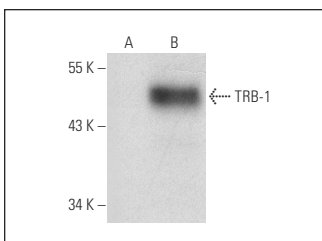
Molecular Weight of mouse TRB-1 isoforms: 41/24 kDa.

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

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



TRB-1 (E-14): sc-87485. 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.

RESEARCH USE

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



Try **TRB-1 (E-7): sc-393536**, our highly recommended monoclonal alternative to TRB-1 (E-14).