SANTA CRUZ BIOTECHNOLOGY, INC.

TRB-2 (m2): 293T Lysate: sc-124270

BACKGROUND

TRB-2 (Tribbles homolog 2), also known as TRIB2, C5FW or GS3955, is a cytoplasmic pro-apoptotic protein that belongs to the Tribbles subfamily of the Serine/Threonine protein kinase family. Members of the Tribbles subfamily, namely TRB-1, TRB-2 and TRB-3, contain a protein kinase-like or TRB domain that lacks the active site lysine and does not appear to display kinase activity. TRB proteins are induced by mitogens and interact with and are stabilized by MAPKKs. TRB proteins play an important function in the MAP kinase pathway, as is demonstrated by the inhibition of MAPK signaling in response to both over and underexpression of TRB proteins. TRB-1 is widely expressed with highest levels found in bone marrow, pancreas, skeletal muscle, peripheral blood leukocytes and thyroid gland; TRB-2 is predominantly expressed in peripheral blood leukocytes; and TRB-3 is found at highest levels in pancreas, bone marrow and peripheral blood leukocytes.

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. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609462. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Wu, M., et al. 2003. SINK is a p65-interacting negative regulator of NFκB-dependent transcription. J. Biol. Chem. 278: 27072-27079.
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. Zhang, Y., et al. 2005. Identification of tribbles homolog 2 as an autoantigen in autoimmune uveitis by phage display. Mol. Immunol. 42: 1275-1281.
6. Keeshan, K., et al. 2006. Tribbles homolog 2 inactivates C/EBPα and causes acute myelogenous leukemia. Cancer Cell 10: 401-411.
7. Lin, K.R., et al. 2007. Survival factor withdrawal-induced apoptosis of TF-1 cells involves a TRB2-Mcl-1 axis-dependent pathway. J. Biol. Chem. 282: 21962-21972.
8. Naiki, T., et al. 2007. TRB2, a mouse tribbles ortholog, suppresses adipocyte differentiation by inhibiting AKT and C/EBPβ. J. Biol. Chem. 282: 24075-24082.

CHROMOSOMAL LOCATION

Genetic locus: Trib2 (mouse) mapping to 12 A1.1.

PRODUCT

TRB-2 (m2): 293T Lysate represents a lysate of mouse TRB-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

TRB-2 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TRB-2 antibodies. Recommended use: 10-20 µl per lane.

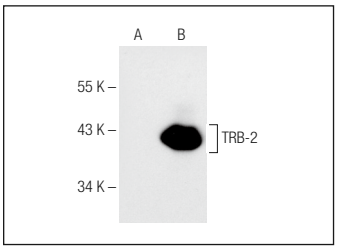
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TRB-2 (B-06): sc-100878 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TRB-2 expression in TRB-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

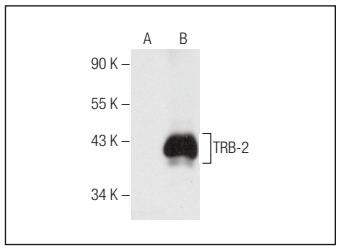
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TRB-2 (B-06): sc-100878. Western blot analysis of TRB-2 expression in non-transfected: sc-117752 (**A**) and mouse TRB-2 transfected: sc-124270 (**B**) 293T whole cell lysates.



TRB-2 (F-5): sc-376776. Western blot analysis of TRB-2 expression in non-transfected: sc-117752 (**A**) and mouse TRB-2 transfected: sc-124270 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.