

TRB-2 (B-06): sc-100878

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 MAPKs. 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/>

CHROMOSOMAL LOCATION

Genetic locus: TRIB2 (human) mapping to 2p24.3; Trib2 (mouse) mapping to 12 A1.1.

SOURCE

TRB-2 (B-06) is a mouse monoclonal antibody raised against recombinant TRB-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TRB-2 (B-06) is recommended for detection of TRB-2 of mouse, rat 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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-2 siRNA (h): sc-94644, TRB-2 siRNA (m): sc-154621, TRB-2 shRNA Plasmid (h): sc-94644-SH, TRB-2 shRNA Plasmid (m): sc-154621-SH, TRB-2 shRNA (h) Lentiviral Particles: sc-94644-V and TRB-2 shRNA (m) Lentiviral Particles: sc-154621-V.

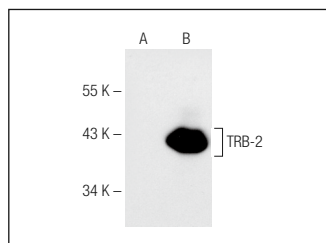
Molecular Weight of TRB-2: 37 kDa.

Positive Controls: TRB-2 (m2): 293T Lysate: sc-124270, Jurkat whole cell lysate: sc-2204 or WEHI-3 cell lysate: sc-3815.

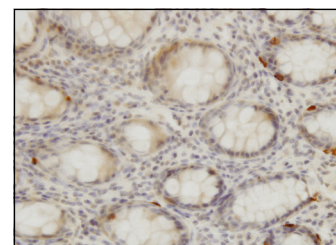
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGλ BP-HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

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 (B-06): sc-100878. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Toyoda, H., et al. 2010. Anti-Tribbles homolog 2 autoantibodies in Japanese patients with narcolepsy. *Sleep* 33: 875-878.
2. Katzerke, C., et al. 2013. Transcription factor C/EBPα-induced microRNA-30c inactivates Notch1 during granulopoiesis and is downregulated in acute myeloid leukemia. *Blood* 122: 2433-2442.
3. Rishi, L., et al. 2014. Regulation of Trib2 by an E2F1-C/EBPα feedback loop in AML cell proliferation. *Blood* 123: 2389-2400.
4. Liang, K.L., et al. 2016. Human TRIB2 oscillates during the cell cycle and promotes ubiquitination and degradation of CDC25C. *Int. J. Mol. Sci.* 17: 1378.
5. Liang, Y., et al. 2017. TRIB2 contributes to cisplatin resistance in small cell lung cancer. *Oncotarget* 8: 109596-109608.
6. Kim, H.S., et al. 2018. TRIB2 regulates the differentiation of MLL-TET1 transduced myeloid progenitor cells. *J. Mol. Med.* 96: 1267-1277.

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.