SANTA CRUZ BIOTECHNOLOGY, INC.

TRB-3 (N-16): sc-34209



BACKGROUND

TRB-3 (tribbles 3), also called NIPK (neuronal cell death-inducible protein kinase) disrupts Insulin signaling by binding directly to Akt kinases and blocking their activation. TRB-3 binds to ATF4, inhibiting its transcriptional activation activity, and regulates activation of MAP kinases. In the liver, TRB-3 is a target for PPAR- α . Amounts of TRB-3 RNA and protein are higher in livers of diabetic mice compared with those in wildtype mice. TRB-3 contributes to Insulin resistance in individuals with susceptibility to type II diabetes. Highest expression of TRB-3 is in liver, pancreas, peripheral blood leukocytes and bone marrow.

REFERENCES

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- 3. Koo, S.H., et al. 2004. PGC-1 promotes Insulin resistance in liver through PPAR- α -dependent induction of TRB-3. Nat. Med. 10: 530-534.
- Ohoka, N., et al. 2005. TRB3, a novel ER stress-inducible gene, is induced via ATF4-CHOP pathway and is involved in cell death. EMBO J. 24: 1243-1255.
- 5. Ord, D., et al. 2005. Characterization of human NIPK (TRB3, SKIP3) gene activation in stressful conditions. Biochem. Biophys. Res. Commun. 330: 210-218.
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- Iynedjian, P.B., et al. 2005. Lack of evidence for a role of TRB3/NIPK as an inhibitor of PKB-mediated Insulin signalling in primary hepatocytes. Biochem. J. 386: 113-118.

CHROMOSOMAL LOCATION

Genetic locus: TRIB3 (human) mapping to 20p13-p12.2; Trib3 (mouse) mapping to 2 G3.

SOURCE

TRB-3 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TRB-3 of human origin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

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

Blocking peptide available for competition studies, sc-34209 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRB-3 (N-16) is recommended for detection of TRB-3 of human and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-3 siRNA (h): sc-44426, TRB-3 shRNA Plasmid (h): sc-44426-SH and TRB-3 shRNA (h) Lentiviral Particles: sc-44426-V.

Molecular Weight of TRB-3: 45 kDa.

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) Immunofluo-rescence: 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.

RESEARCH USE

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

PROTOCOLS

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

MONOS Satisfation Guaranteed

Try TRB-3 (D-4): sc-365842 or TRB-3 (G-10):

sc-271572, our highly recommended monoclonal alternatives to TRB-3 (N-16).