SANTA CRUZ BIOTECHNOLOGY, INC.

TRB-3 (H-19): sc-34211

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. 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.
2. Wood, J.R., et al. 2005. Valproate-induced alterations in human theca cell gene expression: clues to the association between valproate use and metabolic side effects. Physiol. Genomics 20: 233-243.

CHROMOSOMAL LOCATION

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

SOURCE

TRB-3 (H-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TRB-3 of human origin.

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-34211 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRB-3 (H-19) is recommended for detection of TRB-3 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).

TRB-3 (H-19) is also recommended for detection of TRB-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRB-3 siRNA (h): sc-44426, TRB-3 siRNA (m): sc-44427, TRB-3 shRNA Plasmid (h): sc-44426-SH, TRB-3 shRNA Plasmid (m): sc-44427-SH, TRB-3 shRNA (h) Lentiviral Particles: sc-44426-V and TRB-3 shRNA (m) Lentiviral Particles: sc-44427-V.

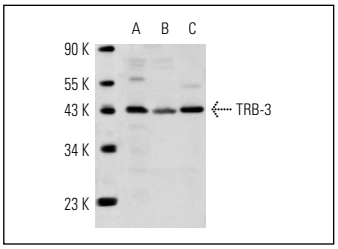
Molecular Weight of TRB-3: 45 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, L8 cell lysate: sc-3807 or rat liver extract: sc-2395.

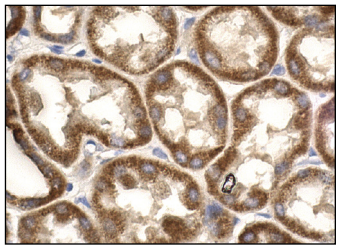
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



TRB-3 (H-19): sc-34211. Western blot analysis of TRB-3 expression in c4 (**A**) and L8 (**B**) whole cell lysates and rat liver tissue extract (**C**).



TRB-3 (H-19): sc-34211. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

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.

PROTOCOLS

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