SANTA CRUZ BIOTECHNOLOGY, INC.

TRPS1 (N-18): sc-26974

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The autosomal dominant tricho-rhino-phalangeal syndrome type 1 (TRPS1) is a rare disorder clinically characterized by sparse scalp hair, a bulbous nose, protruding ears, a thin upper lip, an elongated philtrum and bone deformities. The human TRPS1 gene maps to chromosome 8q23.3 and encodes a GATA-type zinc-finger protein. TRPS1 binds GATA sequences but does not activate GATA-dependent transcription. In fact, TRPS1 represses transcriptional activation mediated by other GATA factors. The noncompetitive mechanism for transcriptional repression depends upon an Ikaros-like C-terminal region. In mice, mutations in the GATA domain of TRPS1 cause facial abnormalities that parallel TRPS1 symptoms. TRPS1 is expressed during mouse embryonic development in developing joints, hair follicles, snout, lung, spine and brain.

REFERENCES

1. Hansen, D.D. and Shewmake, S.W. 1979. Tricho-rhino-phalangeal syndrome. Int. J. Dermatol. 18: 561-564.
2. Momeni, P., et al. 2000. Mutations in a new gene, encoding a zinc-finger protein, cause tricho-rhino-phalangeal syndrome type I. Nat. Genet. 24: 71-74.
3. Malik, T.H., et al. 2001. Transcriptional repression and developmental functions of the atypical vertebrate GATA protein TRPS1. EMBO J. 20: 1715-1725.

CHROMOSOMAL LOCATION

Genetic locus: TRPS1 (human) mapping to 8q23.3; Trps1 (mouse) mapping to 15 C.

SOURCE

TRPS1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TRPS1 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-26974 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-26974 X, 200 µg/0.1 ml.

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.

APPLICATIONS

TRPS1 (N-18) is recommended for detection of TRPS1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRPS1 (N-18) is also recommended for detection of TRPS1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRPS1 siRNA (h): sc-106642, TRPS1 siRNA (m): sc-154697, TRPS1 shRNA Plasmid (h): sc-106642-SH, TRPS1 shRNA Plasmid (m): sc-154697-SH, TRPS1 shRNA (h) Lentiviral Particles: sc-106642-V and TRPS1 shRNA (m) Lentiviral Particles: sc-154697-V.

TRPS1 (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

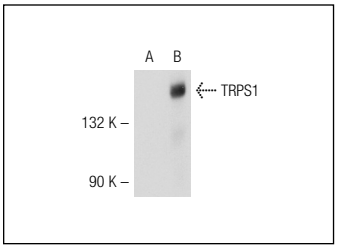
Molecular Weight of TRPS1: 175 kDa.

Positive Controls: rat brain extract: sc-2392 or TRPS1 (m2): 293T Lysate: sc-124310.

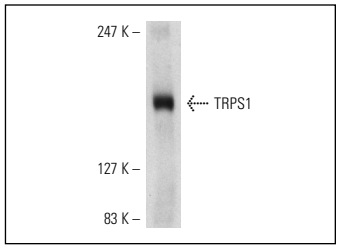
RECOMMENDED SECONDARY REAGENTS

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



TRPS1 (N-18): sc-26974. Western blot analysis of TRPS1 expression in non-transfected: sc-117752 (**A**) and mouse TRPS1 transfected: sc-124310 (**B**) 293T whole cell lysates.



TRPS1 (N-18): sc-26974. Western blot analysis of TRPS1 expression in rat brain tissue extract.

SELECT PRODUCT CITATIONS

1. Piscopo, D.M., et al. 2009. Identification of the GATA factor TRPS1 as a repressor of the osteocalcin promoter. J. Biol. Chem. 284: 31690-31703.
2. Stinson, S., et al. 2011. TRPS1 targeting by miR-221/222 promotes the epithelial-to-mesenchymal transition in breast cancer. Sci. Signal. 4: ra41.