

TSC-22 D4 (N-15): sc-55412

BACKGROUND

Transforming growth factor β -stimulated clone-22 (TSC-22) acts as a transcriptional regulator to modulate cell growth and differentiation, as well as cell death. TSC-22 contains a leucine zipper domain as well as a nuclear export signal, resulting in cytoplasmic localization in living cells. However, concomitant with the induction of apoptosis, TSC-22 translocates from the cytoplasm to the nucleus and shows transcriptional regulatory activity. TSC-22 acts as a major downstream component in both the TGF β pathway and the PPAR γ signaling pathway. The association of these two pathways with tumor suppression, and the significant downregulation of TSC-22 mRNA in various cancer types, implies an antiproliferative role for TSC-22. TSC-22 D4 (TSC22 domain family protein 4), also known as TILZ2 or THG-1, is a 395 amino acid protein that is related to TSC-22 and functions as a transcriptional repressor.

REFERENCES

- Hino, S., et al. 2000. Nuclear translocation of TSC-22 (TGF β -stimulated clone-22) concomitant with apoptosis: TSC-22 as a putative transcriptional regulator. *Biochem. Biophys. Res. Commun.* 278: 659-664.
- Hino, S., et al. 2002. Leucine zipper structure of TSC-22 (TGF β -stimulated clone-22) markedly inhibits the anchorage-independent growth of salivary gland cancer cells. *Oncol. Rep.* 9: 371-374.
- Shostak, K.O., et al. 2003. Downregulation of putative tumor suppressor gene TSC-22 in human brain tumors. *J. Surg. Oncol.* 82: 57-64.
- Uchida, D., et al. 2003. Posttranscriptional regulation of TSC-22 (TGF β -stimulated clone-22) gene by TGF β 1. *Biochem. Biophys. Res. Commun.* 305: 846-854.
- Kawamata, H., et al. 2004. TSC-22 (TGF β -stimulated clone-22): a novel molecular target for differentiation-inducing therapy in salivary gland cancer. *Curr. Cancer Drug Targets* 4: 521-529.

CHROMOSOMAL LOCATION

Genetic locus: TSC22D4 (human) mapping to 7q22.1.

SOURCE

TSC-22 D4 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TSC-22 D4 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-55412 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

TSC-22 D4 (N-15) is recommended for detection of TSC-22 D4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for TSC-22 D4 siRNA (h): sc-63173, TSC-22 D4 shRNA Plasmid (h): sc-63173-SH and TSC-22 D4 shRNA (h) Lentiviral Particles: sc-63173-V.

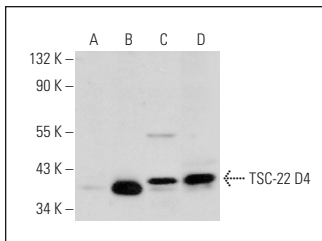
Molecular Weight of TSC-22 D4: 41 kDa.

Positive Controls: TSC-22 D4 (h): 293T Lysate: sc-114517, K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

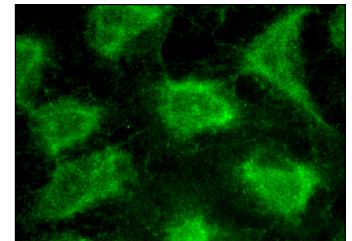
RECOMMENDED SECONDARY REAGENTS

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



TSC-22 D4 (N-15): sc-55412. Western blot analysis of TSC-22 D4 expression in non-transfected: sc-117750 (A), human TSC-22 D4 transfected: sc-114517 (B), K-562 (C) and Hep G2 (D) whole cell lysates.



TSC-22 D4 (N-15): sc-55412. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

PROTOCOLS

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

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Try **TSC-22 D4 (JJ-2): sc-101193**, our highly recommended monoclonal alternative to TSC-22 D4 (N-15).