

## TSC-22 (C-20): sc-27844

### BACKGROUND

Transforming growth factor- $\beta$ -stimulated clone-22 (TSC-22) acts as a transcriptional regulator to modulate cell growth and differentiation and 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 the TGF- $\beta$  pathway, and also the PPAR $\gamma$  signalling pathway. The association of these two pathways with tumor suppression, and the significant downregulation of TSC-22 mRNA in various cancer types, such as brain and salivary gland tumors, imply an antiproliferative role for TSC-22.

### REFERENCES

- Hino, S., et al. 2000. Nuclear translocation of TSC-22 (TGF- $\beta$ -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- $\beta$  stimulated clone-22) markedly inhibits the anchorage-independent growth of salivary gland cancer cells. *Oncol. Rep.* 9: 371-374.

### CHROMOSOMAL LOCATION

Genetic locus: TSC22D1 (human) mapping to 13q14.11; Tsc22d1 (mouse) mapping to 14 D3.

### SOURCE

TSC-22 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TSC-22 of human origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-27844 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

TSC-22 (C-20) is recommended for detection of TSC-22 of mouse, rat and human 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).

TSC-22 (C-20) is also recommended for detection of TSC-22 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TSC-22 siRNA (h): sc-44174, TSC-22 siRNA (m): sc-154710, TSC-22 shRNA Plasmid (h): sc-44174-SH, TSC-22 shRNA Plasmid (m): sc-154710-SH, TSC-22 shRNA (h) Lentiviral Particles: sc-44174-V and TSC-22 shRNA (m) Lentiviral Particles: sc-154710-V.

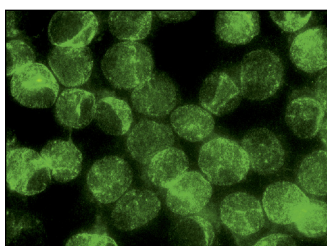
Molecular Weight of TSC-22: 16 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

### 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) 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 (C-20): sc-27844. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

### SELECT PRODUCT CITATIONS

- Lee, J.H., et al. 2008. Interaction between fortilin and transforming growth factor- $\beta$  stimulated clone-22 (TSC-22) prevents apoptosis via the destabilization of TSC-22. *FEBS Lett.* 582: 1210-1218.
- Pollizzi, K., et al. 2009. A hypomorphic allele of Tsc2 highlights the role of TSC1/TSC2 in signaling to AKT and models mild human TSC2 alleles. *Hum. Mol. Genet.* 18: 2378-2387.
- Canterini, S., et al. 2013. Multiple TSC22D4 iso-/phospho-glycoforms display idiosyncratic subcellular localizations and interacting protein partners. *FEBS J.* 280: 1320-1329.

### 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **TSC-22 (R5-6): sc-101195**, our highly recommended monoclonal alternative to TSC-22 (C-20).