

TSSC4 (G-12): sc-136945

BACKGROUND

TSSC4 (tumor suppressing subtransferable candidate 4), also known as tumor-suppressing STF cDNA 4 protein, is a 239 amino acid protein that exists as two alternatively spliced isoforms and belongs to the TSSC4 family. Widely expressed in nearly all adult tissues, TSSC4 is also found in fetal liver, lung, kidney and brain. The gene encoding TSSC4 maps to human chromosome 11p15.5, in a region that is thought to be associated with a tumor-suppressing region that, if altered, can lead to lung, ovarian and breast cancer, rhabdomyosarcoma, Beckwith-Wiedemann syndrome, Wilms' tumor, low birth weight and adrenocortical carcinoma.

REFERENCES

1. Koi, M., et al. 1993. Tumor cell growth arrest caused by subchromosomal transferable DNA fragments from chromosome 11. *Science* 260: 361-364.
2. Hu, R.J., et al. 1997. A 2.5-Mb transcript map of a tumor-suppressing subchromosomal transferable fragment from 11p15.5, and isolation and sequence analysis of three novel genes. *Genomics* 46: 9-17.
3. Feinberg, A.P. 1999. Imprinting of a genomic domain of 11p15 and loss of imprinting in cancer: an introduction. *Cancer Res.* 59: 1743s-1746s.
4. Lee, M.P., et al. 1999. Two novel genes in the center of the 11p15 imprinted domain escape genomic imprinting. *Hum. Mol. Genet.* 8: 683-690.
5. Paulsen, M., et al. 2000. Sequence conservation and variability of imprinting in the Beckwith-Wiedemann syndrome gene cluster in human and mouse. *Hum. Mol. Genet.* 9: 1829-1841.
6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 603852. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Smith, A.C., et al. 2007. Growth regulation, imprinted genes, and chromosome 11p15.5. *Pediatr. Res.* 61: 43R-47R.

CHROMOSOMAL LOCATION

Genetic locus: TSSC4 (human) mapping to 11p15.5; Tssc4 (mouse) mapping to 7 F5.

SOURCE

TSSC4 (G-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TSSC4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136945 P, (100 µg 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.

APPLICATIONS

TSSC4 (G-12) is recommended for detection of TSSC4 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with TSSC1 or TSSC3.

Suitable for use as control antibody for TSSC4 siRNA (h): sc-96923, TSSC4 siRNA (m): sc-154739, TSSC4 shRNA Plasmid (h): sc-96923-SH, TSSC4 shRNA Plasmid (m): sc-154739-SH, TSSC4 shRNA (h) Lentiviral Particles: sc-96923-V and TSSC4 shRNA (m) Lentiviral Particles: sc-154739-V.

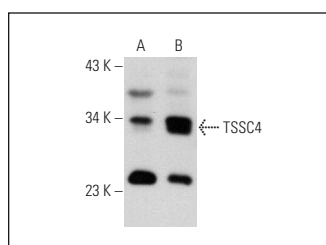
Molecular Weight of TSSC4: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

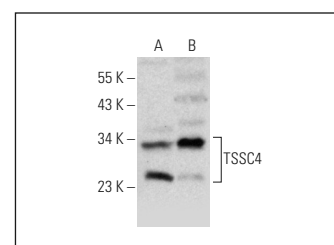
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TSSC4 (G-12): sc-136945. Western blot analysis of TSSC4 expression in HeLa (A) and K-562 (B) whole cell lysates.



TSSC4 (G-12): sc-136945. Western blot analysis of TSSC4 expression in HeLa (A) and LADMAC (B) whole cell lysates.

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.