

TTC4 (h): 293T Lysate: sc-110551

BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins and acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. TTC4 (tetratricopeptide repeat domain 4) is a 387 amino acid ubiquitously expressed nucleoplasmic protein containing three TPR repeats. TTC4 localizes to the cytoplasm, however, when paired with MSL-1, TTC4 translocates to the nucleus during the G₁ and S phases of the cell cycle. TTC4 interacts with HSP 90, HSP 70 and with the replication protein Cdc6 and may be associated with the progression of malignant melanoma. The gene encoding TTC4 is located on human chromosome 1, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

REFERENCES

1. Su, G., et al. 1999. TTC4, a novel human gene containing the tetratricopeptide repeat and mapping to the region of chromosome 1p31 that is frequently deleted in sporadic breast cancer. *Genomics* 55: 157-163.
2. Hey, Y., et al. 2000. Assignment of TTC4 to human chromosome band 1p31.3 and a pseudogene TTC4P to 7p14→p13 by *in situ* hybridization. *Cytogenet. Cell Genet.* 88: 272-274.
3. Su, G., et al. 2000. Genomic structure of the human tetratricopeptide repeat-containing gene, TTC4, from chromosome region 1p31 and mutation analysis in breast cancers. *Int. J. Mol. Med.* 5: 197-200.
4. Poetsch, M., et al. 2000. TTC4, a novel candidate tumor suppressor gene at 1p31 is often mutated in malignant melanoma of the skin. *Oncogene* 19: 5817-5820.
5. Irwin, N., et al. 2002. Lack of TTC4 mutations in melanoma. *J. Invest. Dermatol.* 119: 186-187.
6. Moir, R.D., et al. 2004. Tetratricopeptide repeats of Tfc4 and a limiting step in the assembly of the initiation factor TFIIB. *Adv. Protein Chem.* 67: 93-121.

CHROMOSOMAL LOCATION

Genetic locus: TTC4 (human) mapping to 1p32.3.

PRODUCT

TTC4 (h): 293T Lysate represents a lysate of human TTC4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TTC4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive TTC4 antibodies. Recommended use: 10-20 µl per lane.

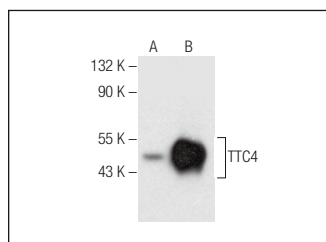
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TTC4 (F-8): sc-377329 is recommended as a positive control antibody for Western Blot analysis of enhanced human TTC4 expression in TTC4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

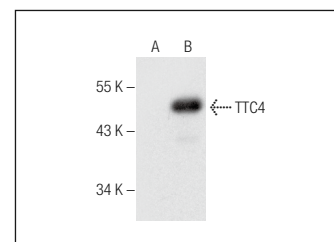
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TTC4 (F-8): sc-377329. Western blot analysis of TTC4 expression in non-transfected: sc-117752 (A) and human TTC4 transfected: sc-110551 (B) 293T whole cell lysates.



TTC4 (G-6): sc-377251. Western blot analysis of TTC4 expression in non-transfected: sc-117752 (A) and human TTC4 transfected: sc-110551 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.