

TTC4 (TR-L6): sc-135591

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

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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.
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6. Moir, R.D. and Willis, I.M. 2004. Tetratricopeptide repeats of Tfc4 and a limiting step in the assembly of the initiation factor TFIIB. *Adv. Protein Chem.* 67: 93-121.
7. Dmitriev, R.I., et al. 2007. Characterization of hampin/MSL1 as a node in the nuclear interactome. *Biochem. Biophys. Res. Commun.* 355: 1051-1057.
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CHROMOSOMAL LOCATION

Genetic locus: TTC4 (human) mapping to 1p32.3; Ttc4 (mouse) mapping to 4 C7.

SOURCE

TTC4 (TR-L6) is a mouse monoclonal antibody raised against recombinant TTC4 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TTC4 (TR-L6) is recommended for detection of TTC4 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TTC4 siRNA (h): sc-88730, TTC4 siRNA (m): sc-154778, TTC4 shRNA Plasmid (h): sc-88730-SH, TTC4 shRNA Plasmid (m): sc-154778-SH, TTC4 shRNA (h) Lentiviral Particles: sc-88730-V and TTC4 shRNA (m) Lentiviral Particles: sc-154778-V.

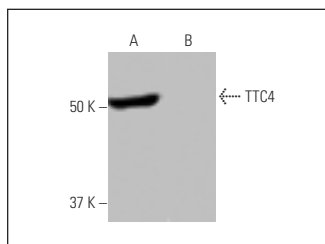
Molecular Weight of TTC4: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or A-431 whole cell lysate: sc-2201.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



TTC4 (TR-L6): sc-135591. Western blot analysis of TTC4 expression in human TTC4 transfected (A) and non-transfected (B) 293T whole cell lysates.

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 for detailed protocols and support products.