

TTC19 (K-24): sc-134134

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 associates with other TPR repeats to achieve ligand binding specificity. TTC19 (tetratricopeptide repeat domain 19) is a 501 amino acid protein containing 5 TPR repeats. TTC19 is encoded by a gene located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes, some of which are involved in tumor suppression and in the pathogenesis of Li-Fraumeni syndrome, early onset breast cancer and a predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

- Bradlow, H.L. 1982. A reassessment of the role of breast tumor aromatization. *Cancer Res.* 42: 3382s-3386s.
- Young, J.C., Obermann, W.M. and Hartl, F.U. 1998. Specific binding of tetratricopeptide repeat proteins to the C-terminal 12-kDa domain of HSP 90. *J. Biol. Chem.* 273: 18007-18010.
- Hey, Y., Brintnell, B., James, L.A. and Varley, J.M. 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.
- Su, G., Casey, G. and Cowell, J.K. 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.
- Marty, C., Browning, D.D. and Ye, R.D. 2003. Identification of tetratricopeptide repeat 1 as an adaptor protein that interacts with heterotrimeric G proteins and the small GTPase Ras. *Mol. Cell. Biol.* 23: 3847-3858.
- Oh, W.K. and Song, J. 2003. Cooperative interaction of HSP 40 and TPR1 with HSP 70 reverses HSP 70-HspBP1 complex formation. *Mol. Cell* 16: 84-91.
- Cortajarena, A.L., Kajander, T., Pan, W., Cocco, M.J. and Regan, L. 2004. Protein design to understand peptide ligand recognition by tetratricopeptide repeat proteins. *Protein Eng. Des. Sel.* 17: 399-409.
- Sagona, A.P., Nezis, I.P., Pedersen, N.M., Liestøl, K., Poulton, J., Rusten, T.E., Skotheim, R.I., Raiborg, C. and Stenmark, H. 2010. PtdIns(3)P controls cytokinesis through KIF13A-mediated recruitment of FYVE-CENT to the midbody. *Nat. Cell Biol.* 12: 362-371.

CHROMOSOMAL LOCATION

Genetic locus: Ttc19 (mouse) mapping to 11 B2.

SOURCE

TTC19 (K-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic TTC19 peptide of mouse origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

TTC19 (K-24) is recommended for detection of TTC19 of mouse and rat 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 TTC19 siRNA (m): sc-154757, TTC19 shRNA Plasmid (m): sc-154757-SH and TTC19 shRNA (m) Lentiviral Particles: sc-154757-V.

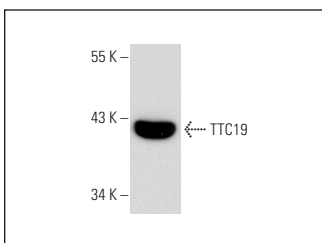
Molecular Weight of TTC19: 41 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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).

DATA



TTC19 (K-24): sc-134134. Western blot analysis of TTC19 expression in NIH/3T3 whole cell lysate.

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 or our catalog for detailed protocols and support products.