

TTC18 (G-14): sc-165815

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. TTC18 (tetratricopeptide repeat protein 18) is a 1,121 amino acid protein containing 8 TPR repeats. Existing as three possible alternatively spliced isoforms, TTC18 is encoded by a gene located on human chromosome 10. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Several protein-coding genes, including those that encode for chemokines, cadherins, excision repair proteins, early growth response factors (Egrs) and fibroblast growth receptors (FGFRs), are located on chromosome 10.

REFERENCES

- Young, J.C., et al. 1998. Specific binding of tetratricopeptide repeat proteins to the C-terminal 12-kDa domain of hsp90. *J. Biol. Chem.* 273: 18007-18010.
- Marty, C., et al. 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., et al. 2003. Cooperative interaction of Hsp40 and TPR1 with Hsp70 reverses Hsp70-HspBp1 complex formation. *Mol. Cells* 16: 84-91.
- Cortajarena, A.L., et al. 2004. Protein design to understand peptide ligand recognition by tetratricopeptide repeat proteins. *Protein Eng. Des. Sel.* 17: 399-409.
- Kaneko, A., et al. 2006. Tcc1p, a novel protein containing the tetratricopeptide repeat motif, interacts with Tup1p to regulate morphological transition and virulence in *Candida albicans*. *Eukaryotic Cell* 5: 1894-1905.
- Morohashi, H., et al. 2009. The amino-terminal TPR domain of Dia2 tethers SCF(Dia2) to the replisome progression complex. *Curr. Biol.* 19: 1943-1949.
- Suizu, F., et al. 2009. The E3 ligase TTC3 facilitates ubiquitination and degradation of phosphorylated Akt. *Dev. Cell* 17: 800-810.
- Lin, Z., et al. 2009. AtTRP1 encodes a novel TPR protein that interacts with the ethylene receptor ERS1 and modulates development in *Arabidopsis*. *J. Exp. Bot.* 60: 3697-3714.

CHROMOSOMAL LOCATION

Genetic locus: TTC18 (human) mapping to 10q22.2; Ttc18 (mouse) mapping to 14 A3.

SOURCE

TTC18 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC18 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165815 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTC18 (G-14) is recommended for detection of TTC18 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)], 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); non cross-reactive with other TTC family members.

TTC18 (G-14) is also recommended for detection of TTC18 in additional species, including canine.

Suitable for use as control antibody for TTC18 siRNA (h): sc-90610, TTC18 siRNA (m): sc-154756, TTC18 shRNA Plasmid (h): sc-90610-SH, TTC18 shRNA Plasmid (m): sc-154756-SH, TTC18 shRNA (h) Lentiviral Particles: sc-90610-V and TTC18 shRNA (m) Lentiviral Particles: sc-154756-V.

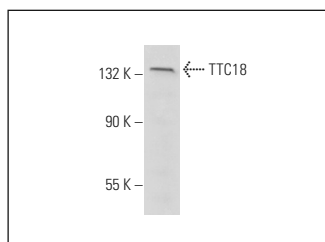
Molecular Weight of TTC18: 126 kDa.

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 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



TTC18 (G-14): sc-165815. Western blot analysis of TTC18 expression in NIH/3T3 whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.