

TTC9C (T-13): sc-138714

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. TTC9C (tetratricopeptide repeat domain 9C) is a 171 amino acid protein belonging to the TTC9 family. Containing three TPR repeats, TTC9C is encoded by a gene located in a region of human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that map to chromosome 11.

REFERENCES

- Blatch, G.L. and Lässle, M. 1999. The tetratricopeptide repeat: a structural motif mediating protein-protein interactions. *Bioessays* 21: 932-939.
- Andrade, M.A., Perez-Iratxeta, C. and Ponting, C.P. 2001. Protein repeats: structures, functions, and evolution. *J. Struct. Biol.* 134: 117-131.
- Smith, D.F. 2004. Tetratricopeptide repeat cochaperones in steroid receptor complexes. *Cell Stress Chaperones* 9: 109-121.
- Banerjee, A., Periyasamy, S., Wolf, I.M., Hinds, T.D., Yong, W., Shou, W. and Sanchez, E.R. 2008. Control of glucocorticoid and progesterone receptor subcellular localization by the ligand-binding domain is mediated by distinct interactions with tetratricopeptide repeat proteins. *Biochemistry* 47: 10471-10480.
- Wilson, J.B., Blom, E., Cunningham, R., Xiao, Y., Kupfer, G.M. and Jones, N.J. 2010. Several tetratricopeptide repeat (TPR) motifs of FANCG are required for assembly of the BRCA2/D1-D2-G-X3 complex, FANCD2 monoubiquitylation and phleomycin resistance. *Mutat. Res.* 689: 12-20.
- Schülke, J.P., Wochnik, G.M., Lang-Rollin, I., Gassen, N.C., Knapp, R.T., Berning, B., Yassouridis, A. and Rein, T. 2010. Differential impact of tetratricopeptide repeat proteins on the steroid hormone receptors. *PLoS ONE* 5: e11717.
- Krachler, A.M., Sharma, A. and Kleanthous, C. 2010. Self-association of TPR domains: Lessons learned from a designed, consensus-based TPR oligomer. *Proteins* 78: 2131-2143.

CHROMOSOMAL LOCATION

Genetic locus: TTC9C (human) mapping to 11q12.3; Ttc9c (mouse) mapping to 19 A.

SOURCE

TTC9C (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC9C 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-138714 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTC9C (T-13) is recommended for detection of TTC9C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 TTC9B.

TTC9C (T-13) is also recommended for detection of TTC9C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TTC9C siRNA (h): sc-96258, TTC9C siRNA (m): sc-154784, TTC9C shRNA Plasmid (h): sc-96258-SH, TTC9C shRNA Plasmid (m): sc-154784-SH, TTC9C shRNA (h) Lentiviral Particles: sc-96258-V and TTC9C shRNA (m) Lentiviral Particles: sc-154784-V.

Molecular Weight of TTC9C: 20 kDa.

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) 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.

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.