

TTC21B (C-15): sc-169726

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. TTC21B (tetratricopeptide repeat domain 21B), also known as THM1, is a 1,316 amino acid protein that contains 19 TPR repeats and belongs to the TTC21 family. Localizing to cytoplasm and cytoskeleton, TTC21B exists as two alternatively spliced isoforms and is thought to negatively regulate Shh signal transduction. TTC21B may also be involved in retrograde intraflagellar transport in cilia, and is encoded by a gene that maps to human chromosome 2q24.3.

REFERENCES

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2. Cortajarena, A.L. and Regan, L. 2006. Ligand binding by TPR domains. *Protein Sci.* 15: 1193-1198.
3. Kajander, T., Cortajarena, A.L., Mochrie, S. and Regan, L. 2007. Structure and stability of designed TPR protein superhelices: unusual crystal packing and implications for natural TPR proteins. *Acta Crystallogr. D Biol. Crystallogr.* 63: 800-811.
4. Tran, P.V., Haycraft, C.J., Besschetnova, T.Y., Turbe-Doan, A., Stottmann, R.W., Herron, B.J., Chesebro, A.L., Qiu, H., Scherz, P.J., Shah, J.V., Yoder, B.K. and Beier, D.R. 2008. THM1 negatively modulates mouse sonic hedgehog signal transduction and affects retrograde intraflagellar transport in cilia. *Nat. Genet.* 40: 403-410.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612014. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: TTC21B (human) mapping to 2q24.3; Ttc21b (mouse) mapping to 2 C1.3.

SOURCE

TTC21B (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TTC21B of human origin.

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-169726 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

TTC21B (C-15) is recommended for detection of TTC21B 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 TTC21A.

TTC21B (C-15) is also recommended for detection of TTC21B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TTC21B siRNA (h): sc-94435, TTC21B siRNA (m): sc-154759, TTC21B shRNA Plasmid (h): sc-94435-SH, TTC21B shRNA Plasmid (m): sc-154759-SH, TTC21B shRNA (h) Lentiviral Particles: sc-94435-V and TTC21B shRNA (m) Lentiviral Particles: sc-154759-V.

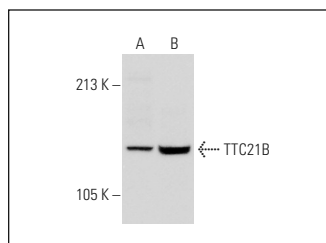
Molecular Weight of TTC21B isoforms: 151/56 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

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



TTC21B (C-15): sc-169726. Western blot analysis of TTC21B expression in HeLa (A) and Jurkat (B) whole cell lysates.

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.