TTC30A/B (S-16): sc-324461

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BIOTECHNOLOGY

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BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins and acts to mediate protein-protein inter-actions 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. TTC30A (tetratri-copeptide repeat domain 30A) and TTC30B (tetratricopeptide repeat domain 30B) are cell projection proteins that belong to the TTC30/dfy-1/fleer family. TTC30A and TTC30B contain eight TPR repeats and may be required for polyglutamylation of axonemal tubulin. Both TTC30A and TTC30B may be involved in anterograde intraflagellar transport (IFT), which is a process where cilia precursors are transported from the base of the cilium to the site of incorporation at the tip. TTC30A and TTC30B consists of 665 amino acids and are encoded by a gene located on human chromosome 2q31.2.

REFERENCES

1. 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 hsp90. J. Biol. Chem. 273: 18007-18010.

2. Su, G., Roberts, T. and Cowell, J.K. 1999. TTC4, a novel human gene con-taining the tetratricopeptide repeat and mapping to the region of chromo-some 1p31 that is frequently deleted in sporadic breast cancer. Genomics 55: 157-163.

3. 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.

4. Lin, Z., Ho, C.W. and Grierson, D. 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.

5. Zhang, Z., Roe, S.M., Diogon, M., Kong, E., El Alaoui, H. and Barford, D. 2010. Molecular structure of the N-terminal domain of the APC/C subunit Cdc27 reveals a homo-dimeric tetratricopeptide repeat architecture. J. Mol. Biol. 397: 1316-1328.

6. SWISS-PROT/TrEMBL (Q86WT1). World Wide Web URL: http://www.uniprot.org/uniprot/Q86WT1

CHROMOSOMAL LOCATION

Genetic locus: TTC30A/TTC30B (human) mapping to 2q31.2; Ttc30b/Ttc30a2 (mouse) mapping to 2 C3.

SOURCE

TTC30A/B (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC30B 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-324461 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTC30A/B (S-16) is recommended for detection of TTC30A and TTC30B of human, mouse and rat origin, TTC30A2 of mouse 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).

TTC30A/B (S-16) is also recommended for detection of TTC30A and TTC30B in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of TTC30A/B: 76 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) Immunofluo-rescence: 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.

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.