SANTA CRUZ BIOTECHNOLOGY, INC.

TTC30A/B (A-10): sc-393206

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. TTC30A (tetratricopeptide 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., et al. 1998. Specific binding of tetratricopeptide repeat proteins to the C-terminal 12-kDa domain of HSP 90. J. Biol. Chem. 273: 18007-18010.
2. Su, G., et al. 1999. TTC4, a novel human gene containing the tetratricopeptide repeat and mapping to the region of chromosome 1p31 that is frequently deleted in sporadic breast cancer. Genomics 55: 157-163.
3. Cortajarena, A.L., et al. 2004. Protein design to understand peptide ligand recognition by tetratricopeptide repeat proteins. Protein Eng. Des. Sel. 17: 399-409.
4. 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: TTC30A/TTC30B (human) mapping to 2q31.2; Ttc30b (mouse) mapping to 2 C3.

SOURCE

TTC30A/B (A-10) is a mouse monoclonal antibody raised against amino acids 330-523 mapping within an internal region of TTC30A of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TTC30A/B (A-10) is available conjugated to agarose (sc-393206 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393206 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393206 PE), fluorescein (sc-393206 FITC), Alexa Fluor® 488 (sc-393206 AF488), Alexa Fluor® 546 (sc-393206 AF546), Alexa Fluor® 594 (sc-393206 AF594) or Alexa Fluor® 647 (sc-393206 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393206 AF680) or Alexa Fluor® 790 (sc-393206 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TTC30A/B (A-10) is recommended for detection of TTC30A and TTC30B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

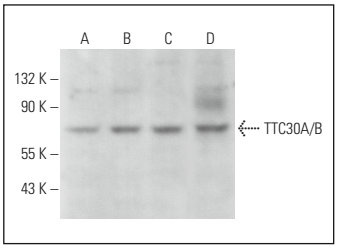
Molecular Weight of TTC30A/B: 76 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, A549 cell lysate: sc-2413 or A-431 whole cell lysate: sc-2201.

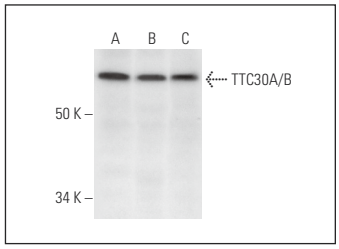
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TTC30A/B (A-10): sc-393206. Western blot analysis of TTC30A/B expression in A-431 (**A**), NTERA-2 cl.D1 (**B**), T98G (**C**) and C6 (**D**) whole cell lysates.



TTC30A/B (A-10): sc-393206. Western blot analysis of TTC30A/B expression in NTERA-2 cl.D1 (**A**), A549 (**B**) and A-431 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, C., et al. 2019. Bi-allelic mutations in TTC29 cause male subfertility with asthenoteratospermia in humans and mice. Am. J. Hum. Genet. 105: 1168-1181.

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 for detailed protocols and support products.