SANTA CRUZ BIOTECHNOLOGY, INC.

TTC35 (D-7): sc-166011

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. TTC35 (tetratricopeptide repeat domain 35), also known as KIAA0103, is a 297 amino acid protein that contains three tetratricopeptide repeats and localizes to the inner nuclear membrane. Its similarity to the *Nicotiana tabacum* GlcNAc transferase protein suggests that TTC35 may be a putative O-linked glycosyl transferase.

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. Dreger, M., et al. 2001. Nuclear envelope proteomics: novel integral membrane proteins of the inner nuclear membrane. Proc. Natl. Acad. Sci. USA 98: 11943-11948.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607722. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: EMC2 (human) mapping to 8q23.1; Emc2 (mouse) mapping to 15 B3.2.

SOURCE

TTC35 (D-7) is a mouse monoclonal antibody raised against amino acids 1-297 representing full length TTC35 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TTC35 (D-7) is recommended for detection of TTC35 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).

Suitable for use as control antibody for TTC35 siRNA (h): sc-77588, TTC35 siRNA (m): sc-154772, TTC35 shRNA Plasmid (h): sc-77588-SH, TTC35 shRNA Plasmid (m): sc-154772-SH, TTC35 shRNA (h) Lentiviral Particles: sc-77588-V and TTC35 shRNA (m) Lentiviral Particles: sc-154772-V.

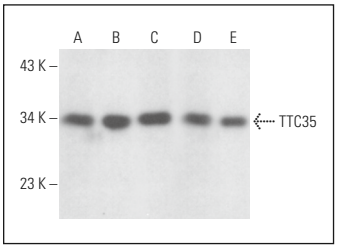
Molecular Weight of TTC35: 40 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, Jurkat whole cell lysate: sc-2204 or HeLa nuclear extract: sc-2120.

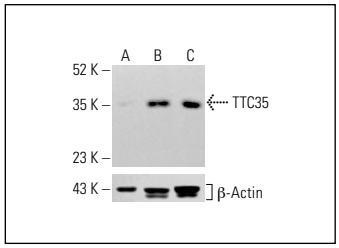
RECOMMENDED SUPPORT REAGENTS

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



TTC35 (D-7): sc-166011. Western blot analysis of TTC35 expression in HeLa (**A**), HEL 92.1.7 (**B**) and NIH/3T3 (**C**) nuclear extracts and RT-4 (**D**) and WI-38 (**E**) whole cell lysates.



TTC35 (D-7): sc-166011. Western blot analysis of TTC35 expression in untreated HCT-116 (**A**), chemically-treated HCT-116 (**B**) and HeLa (**C**) whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

SELECT PRODUCT CITATIONS

1. Louie, R.J., et al. 2012. A yeast phenomic model for the gene interaction network modulating CFTR-ΔF508 protein biogenesis. Genome Med. 4: 103.
2. Lin, D.L., et al. 2019. The ER membrane protein complex promotes biogenesis of Dengue and Zika virus non-structural multi-pass transmembrane proteins to support infection. Cell Rep. 27: 1666-1674.e4.
3. O'Keefe, S., et al. 2021. An alternative pathway for membrane protein biogenesis at the endoplasmic reticulum. Commun. Biol. 4: 828.
4. Roboti, P., et al. 2022. Mitochondrial antiviral-signalling protein is a client of the BAG6 protein quality control complex. J. Cell Sci. 135: jcs259596.
5. Xia, P., et al. 2023. Differences of ferroptosis-related genes between White and Asian patients with liver cancer. Am. J. Cancer Res. 13: 3659-3667.

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.