

TTC15 (C-20): sc-249121

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. TTC15 (TPR repeat protein 15), also known as TRAPPC12 (trafficking protein particle complex subunit 12) or CGI-87, is a 735 amino acid protein that contains 4 TPR repeats. Localizing to the endoplasmic reticulum (ER)-Golgi intermediate compartment, TTC15 may be involved in the early stage trafficking between the ER and Golgi apparatus, and is a component of the TRAPP tethering complex. The gene encoding TTC15 maps to human chromosome 2p25.3.

REFERENCES

1. Su, G., Roberts, T. and Cowell, J.K. 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.
2. Su, G., Casey, G. and Cowell, J.K. 2000. Genomic structure of the human tetratricopeptide repeat-containing gene, TTC4, from chromosome region 1p31 and mutation analysis in breast cancers. *Int. J. Mol. Med.* 5: 197-200.
3. Gauci, S., Helbig, A.O., Slijper, M., Krijgsveld, J., Heck, A.J. and Mohammed, S. 2009. Lys-N and trypsin cover complementary parts of the phosphoproteome in a refined SCX-based approach. *Anal. Chem.* 81: 4493-4501.
4. Mayya, V., Lundgren, D.H., Hwang, S.I., Rezaul, K., Wu, L., Eng, J.K., Rodionov, V. and Han, D.K. 2009. Quantitative phosphoproteomic analysis of T cell receptor signaling reveals system-wide modulation of protein-protein interactions. *Sci. Signal.* 2: ra46.
5. Scrivens, P.J., Noueihed, B., Shahrzad, N., Hul, S., Brunet, S. and Sacher, M. 2011. C4orf41 and TTC-15 are mammalian TRAPP components with a role at an early stage in ER-to-Golgi trafficking. *Mol. Biol. Cell* 22: 2083-2093.
6. Wagner, S.A., Beli, P., Weinert, B.T., Nielsen, M.L., Cox, J., Mann, M. and Choudhary, C. 2011. A proteome-wide, quantitative survey of *in vivo* ubiquitylation sites reveals widespread regulatory roles. *Mol. Cell. Proteomics* 10: M111.

CHROMOSOMAL LOCATION

Genetic locus: TRAPPC12 (human) mapping to 2p25.3; Trappc12 (mouse) mapping to 12 A2.

SOURCE

TTC15 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TTC15 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-249121 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTC15 (C-20) is recommended for detection of TTC15 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 other TTC family members.

TTC15 (C-20) is also recommended for detection of TTC15 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for TTC15 siRNA (h): sc-94264, TTC15 siRNA (m): sc-154753, TTC15 shRNA Plasmid (h): sc-94264-SH, TTC15 shRNA Plasmid (m): sc-154753-SH, TTC15 shRNA (h) Lentiviral Particles: sc-94264-V and TTC15 shRNA (m) Lentiviral Particles: sc-154753-V.

Molecular Weight of TTC15: 79 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.