

TTC32 (S-16): sc-249160

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. TTC32 (tetratricopeptide repeat domain 32) is a 151 amino acid protein that contains three TPR repeats, and is encoded by a gene located on human chromosome 2p24.1. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin ichthyosis, sitosterolemia and Alström syndrome.

REFERENCES

1. Ijdo, J.W., Baldini, A., Ward, D.C., Reeders, S.T. and Wells, R.A. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avarello, R., Pedicini, A., Caiulo, A., Zuffardi, O. and Fraccaro, M. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
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. 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.
5. Cortajarena, A.L. and Regan, L. 2006. Ligand binding by TPR domains. *Protein Sci.* 15: 1193-1198.
6. 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.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: TTC32 (human) mapping to 2p24.1; Ttc32 (mouse) mapping to 12 A1.1.

SOURCE

TTC32 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC32 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-249160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTC32 (S-16) is recommended for detection of TTC32 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.

TTC32 (S-16) is also recommended for detection of TTC32 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TTC32 siRNA (h): sc-94541, TTC32 siRNA (m): sc-154770, TTC32 shRNA Plasmid (h): sc-94541-SH, TTC32 shRNA Plasmid (m): sc-154770-SH, TTC32 shRNA (h) Lentiviral Particles: sc-94541-V and TTC32 shRNA (m) Lentiviral Particles: sc-154770-V.

Molecular Weight of TTC32: 17 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.

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.