TTC27 (K-18): sc-244525



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. TTC27 (tetratricopeptide repeat domain 27) is a 843 amino acid protein that belongs to the TTC27 family. Containing three HAT repeats and seven TPR repeats, TTC27 is encoded by a gene located on human chromosome 2p22.3. 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 icthyosis, sitosterolemia and Alström syndrome.

REFERENCES

- 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.
- 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.
- 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.
- 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.
- Cortajarena, A.L. and Regan, L. 2006. Ligand binding by TPR domains. Protein Sci. 15: 1193-1198.
- 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: TTC27 (human) mapping to 2p22.3; Ttc27 (mouse) mapping to 17 E2.

SOURCE

TTC27 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC27 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 lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-244525 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTC27 (K-18) is recommended for detection of TTC27 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.

TTC27 (K-18) is also recommended for detection of TTC27 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TTC27 siRNA (h): sc-94834, TTC27 siRNA (m): sc-154764, TTC27 shRNA Plasmid (h): sc-94834-SH, TTC27 shRNA Plasmid (m): sc-154764-SH, TTC27 shRNA (h) Lentiviral Particles: sc-94834-V and TTC27 shRNA (m) Lentiviral Particles: sc-154764-V.

Molecular Weight of TTC27: 97 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat lgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat lgG-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 lgG-FITC: sc-2024 (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.

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