

# TTC27 (E-17): sc-244524

## 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 ichthyosis, sitosterolemia and Alström syndrome.

## REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avarello, R., et al. 1992. Evidence for an ancestral aliphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
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. Cortajarena, A.L. and Regan, L. 2006. Ligand binding by TPR domains. *Protein Sci.* 15: 1193-1198.
5. Kajander, T., et al. 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.
6. 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: TTC27 (human) mapping to 2p22.3; Ttc27 (mouse) mapping to 17 E2.

## SOURCE

TTC27 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC27 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-244524 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

TTC27 (E-17) 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), 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); non cross-reactive with other TTC family members.

TTC27 (E-17) 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.

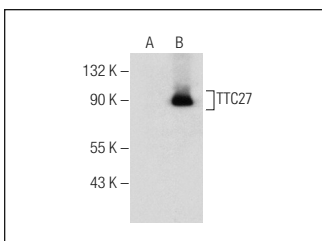
Molecular Weight of TTC27: 97 kDa.

Positive Controls: TTC27 (h): 293T Lysate: sc-117254.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



TTC27 (E-17): sc-244524. Western blot analysis of TTC27 expression in non-transfected: sc-117752 (A) and human TTC27 transfected: sc-117254 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.