

TTC5 (N-15): sc-136948

BACKGROUND

The tetratricopeptide repeat (TRP) motif is a degenerate, 34 amino acid sequence found in many proteins that acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TRP repeats, each of which has a helix-turn-helix shape that stacks on other TRP repeats to achieve ligand binding specificity. TTC5 (tetratricopeptide repeat domain 5), also known as Strap, is a 440 amino acid protein that contains 4 TPR repeats. Localized to both the nucleus and the cytoplasm, TTC5 functions as an adaptor protein that mediates p53 response pathways by regulating the assembly of multi-protein complexes. Through its interaction with p53, TTC5 increases the level of p53-dependent transcription and p53-induced apoptosis, thereby playing a role in cell cycle events. The protein structure and activity of TTC5 is enhanced upon phosphorylation at the Ser 203 residue in humans.

REFERENCES

1. Young, J.C., et al. 1998. Specific binding of tetratricopeptide repeat proteins to the C-terminal 12-kDa domain of hsp90. *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. Demonacos, C., et al. 2001. A TPR motif cofactor contributes to p300 activity in the p53 response. *Mol. Cell* 8: 71-84.
4. Cortajarena, A.L., et al. 2004. Protein design to understand peptide ligand recognition by tetratricopeptide repeat proteins. *Protein Eng. Des. Sel.* 17: 399-409.

CHROMOSOMAL LOCATION

Genetic locus: TTC5 (human) mapping to 14q11.2; Ttc5 (mouse) mapping to 14 C1.

SOURCE

TTC5 (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of TTC5 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136948 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

TTC5 (N-15) is recommended for detection of TTC5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TTC family members.

TTC5 (N-15) is also recommended for detection of TTC5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TTC5 siRNA (h): sc-92262, TTC5 siRNA (m): sc-154779, TTC5 shRNA Plasmid (h): sc-92262-SH, TTC5 shRNA Plasmid (m): sc-154779-SH, TTC5 shRNA (h) Lentiviral Particles: sc-92262-V and TTC5 shRNA (m) Lentiviral Particles: sc-154779-V.

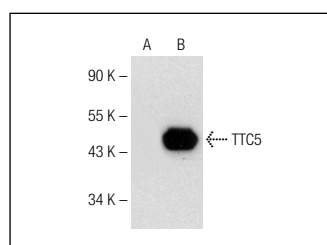
Molecular Weight of TTC5: 49 kDa.

Positive Controls: TTC5 (m): 293T Lysate: sc-124358 or TTC5 (h): 293T Lysate: sc-115562.

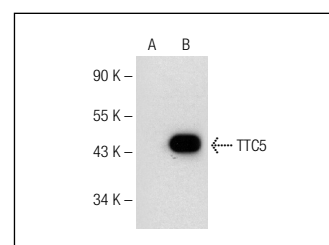
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TTC5 (N-15): sc-136948. Western blot analysis of TTC5 expression in non-transfected: sc-117752 (A) and mouse TTC5 transfected: sc-124358 (B) 293T whole cell lysates.



TTC5 (N-15): sc-136948. Western blot analysis of TTC5 expression in non-transfected: sc-117752 (A) and human TTC5 transfected: sc-115562 (B) 293T whole cell lysates.

RESEARCH USE

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