

**TTC5 (C-13): sc-136947**

The Power to Question

**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 HSP 90. *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 (C-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-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-136947 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

**APPLICATIONS**

TTC5 (C-13) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 (C-13) is also recommended for detection of TTC5 in additional species, including equine, bovine and porcine.

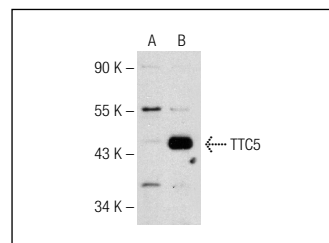
Suitable for use as control antibody for TTC5 siRNA (h): sc-92262, TTC5 siRNA (m): sc-154779, TTC5 shRNA Plasmid (h): sc-92262-SH, TTC5 shRNA Plasmid (m): sc-154779-SH, TTC5 shRNA (h) Lentiviral Particles: sc-92262-V and TTC5 shRNA (m) Lentiviral Particles: sc-154779-V.

Molecular Weight of TTC5: 49 kDa.

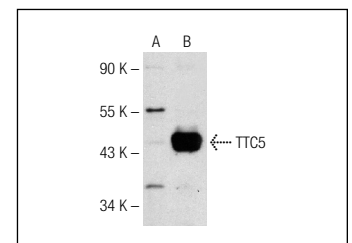
Positive Controls: TTC5 (h): 293T Lysate: sc-115562 or TTC5 (m): 293T Lysate: sc-124358.

**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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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 (C-13): sc-136947. Western blot analysis of TTC5 expression in non-transfected: sc-117752 (A) and human TTC5 transfected: sc-115562 (B) 293T whole cell lysates.



TTC5 (C-13): sc-136947. Western blot analysis of TTC5 expression in non-transfected: sc-117752 (A) and mouse TTC5 transfected: sc-124358 (B) 293T whole cell lysates.

**RESEARCH USE**

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