

# TTC37 (D-12): sc-137882

## BACKGROUND

TTC37 (tetratricopeptide repeat protein 37), also known as thespin, is a 1,564 amino acid protein that contains twenty tetratricopeptide (TPR) repeats. TPR repeat-containing motifs are found in a variety of proteins and may mediate protein-protein interactions and chaperone activity. Although not expressed in liver, TTC37 is a widely expressed protein with highest levels of expression in vascular tissues, lymph node, pituitary, lung and intestine. The gene that encodes TTC37 consists of more than 91,000 bases and maps to human chromosome 5q15. Defects in TTC37 are associated with Tricho-Hepato-Enteric (THE) syndrome. THE syndrome is a rare and severe autosomal recessive condition characterized by intractable diarrhea with facial dysmorphism, intrauterine growth retardation immunodeficiency with low serum concentrations of immunoglobulins and hair abnormalities known as woolly hair.

## REFERENCES

1. Edwards, S.J., et al. 1997. The mutational spectrum in Treacher Collins syndrome reveals a predominance of mutations that create a premature-termination codon. *Am. J. Hum. Genet.* 60: 515-524.
2. McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. *Hum. Mutat.* 10: 317-321.
3. Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. *Dis. Colon Rectum.* 48: 2148-2152.
4. Anindya, R., et al. 2007. Damage-induced ubiquitylation of human RNA polymerase II by the ubiquitin ligase Nedd4, but not Cockayne syndrome proteins or BRCA1. *Mol. Cell.* 28: 386-397.
5. Vera-Carbonell, A., et al. 2009. Characterization of a *de novo* complex chromosomal rearrangement in a patient with cri-du-chat and trisomy 5p syndromes. *Am. J. Med. Genet. A.* 149A: 2513-2521.
6. Ravandi, F., et al. 2009. Superior outcome with hypomethylating therapy in patients with acute myeloid leukemia and high-risk myelodysplastic syndrome and chromosome 5 and 7 abnormalities. *Cancer* 115: 5746-5751.
7. Sazawal, S., et al. 2009. Haematological & molecular profile of acute myelogenous leukaemia in India. *Indian J. Med. Res.* 129: 256-261.
8. Hartley, J.L., et al. 2010. Mutations in TTC37 cause trichohepatoenteric syndrome (phenotypic diarrhea of infancy). *Gastroenterology* 138: 2388-2398.
9. Fabre, A., et al. 2011. Novel mutations in TTC37 associated with tricho-hepato-enteric syndrome. *Hum. Mutat.* 32: 277-281.

## CHROMOSOMAL LOCATION

Genetic locus: TTC37 (human) mapping to 5q15; Ttc37 (mouse) mapping to 13 C1.

## RESEARCH USE

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

## SOURCE

TTC37 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTC37 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-137882 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TTC37 (D-12) is recommended for detection of TTC37 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.

Suitable for use as control antibody for TTC37 siRNA (h): sc-91828, TTC37 siRNA (m): sc-154774, TTC37 shRNA Plasmid (h): sc-91828-SH, TTC37 shRNA Plasmid (m): sc-154774-SH, TTC37 shRNA (h) Lentiviral Particles: sc-91828-V and TTC37 shRNA (m) Lentiviral Particles: sc-154774-V.

Molecular Weight of TTC37: 175 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.

## PROTOCOLS

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