

CTNNB1 (G-19): sc-85514

BACKGROUND

CTNNB1 (catenin, β like 1), also known as NAP (nuclear-associated protein) or P14L, is an evolutionarily conserved protein with structural homology to members of the armadillo family, including β -catenin. CTNNB1 is expressed in a variety of tissues with highest expression levels found in heart, spleen, testis, placenta, thyroid and skeletal muscle. Localizing to the nucleus, CTNNB1 contains a bipartite nuclear localization signal, an acidic domain, a leucine-isoleucine zipper, an acidic domain and phosphorylation sites. Via its C-terminus, CTNNB1 is believed to play a role in apoptosis. In addition, multiple SNPs (single nucleotide polymorphisms) in the CTNNB1 have been associated with fat mass and body mass index (BMI), suggesting a possible role for CTNNB1 in the development of obesity.

REFERENCES

- Jabbour, L., et al. 2003. Sequence, gene structure, and expression pattern of CTNNB1, a minor-class intron-containing gene—evidence for a role in apoptosis. *Genomics* 81: 292-303.
- Albertini, E., et al. 2004. Isolation of candidate genes for apomixis in *Poa pratensis* L. *Plant Mol. Biol.* 56: 879-894.
- Halbleib, J.M., et al. 2007. Transcriptional modulation of genes encoding structural characteristics of differentiating enterocytes during development of a polarized epithelium *in vitro*. *Mol. Biol. Cell* 18: 4261-4278.
- Loukopoulos, P., et al. 2007. Genome-wide array-based comparative genomic hybridization analysis of pancreatic adenocarcinoma: identification of genetic indicators that predict patient outcome. *Cancer Sci.* 98: 392-400.
- Lee, L.T., et al. 2007. Discovery of growth hormone-releasing hormones and receptors in nonmammalian vertebrates. *Proc. Natl. Acad. Sci. USA* 104: 2133-2138.
- Liu, Y.J., et al. 2008. Genome-wide association scans identified CTNNB1 as a novel gene for obesity. *Hum. Mol. Genet.* 17: 1803-1813.

CHROMOSOMAL LOCATION

Genetic locus: CTNNB1 (human) mapping to 20q11.23; Ctnnb1 (mouse) mapping to 2 H1.

SOURCE

CTNNB1 (G-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CTNNB1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-85514 P, (100 μ g 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

CTNNB1 (G-19) is recommended for detection of CTNNB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CTNNB1 (G-19) is also recommended for detection of CTNNB1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CTNNB1 siRNA (h): sc-77045, CTNNB1 siRNA (m): sc-142622, CTNNB1 shRNA Plasmid (h): sc-77045-SH, CTNNB1 shRNA Plasmid (m): sc-142622-SH, CTNNB1 shRNA (h) Lentiviral Particles: sc-77045-V and CTNNB1 shRNA (m) Lentiviral Particles: sc-142622-V.

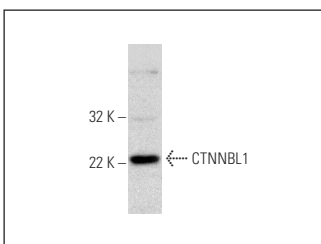
Molecular Weight of CTNNB1: 65 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or K-562 nuclear extract: sc-2130.

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



CTNNB1 (G-19): sc-85514. Western blot analysis of CTNNB1 expression in K-562 nuclear extract.

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.