

# CTNNBL1 (D-2): sc-398335

## BACKGROUND

CTNNBL1 (catenin,  $\beta$  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  $\beta$ -catenin. CTNNBL1 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, CTNNBL1 contains a bipartite nuclear localization signal, an acidic domain, a leucine-isoleucine zipper, an acidic domain and phosphorylation sites. Via its C-terminus, CTNNBL1 is believed to play a role in apoptosis. In addition, multiple SNPs (single nucleotide polymorphisms) in the CTNNBL1 have been associated with fat mass and body mass index (BMI), suggesting a possible role for CTNNBL1 in the development of obesity.

## REFERENCES

- Jabbour, L., et al. 2003. Sequence, gene structure, and expression pattern of CTNNBL1, 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 CTNNBL1 as a novel gene for obesity. *Hum. Mol. Genet.* 17: 1803-1813.

## CHROMOSOMAL LOCATION

Genetic locus: CTNNBL1 (human) mapping to 20q11.23; Ctnnbl1 (mouse) mapping to 2 H1.

## SOURCE

CTNNBL1 (D-2) is a mouse monoclonal antibody raised against amino acids 264-563 mapping at the C-terminus of CTNNBL1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## RESEARCH USE

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

## APPLICATIONS

CTNNBL1 (D-2) is recommended for detection of CTNNBL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

CTNNBL1 (D-2) is also recommended for detection of CTNNBL1 in additional species, including canine.

Suitable for use as control antibody for CTNNBL1 siRNA (h): sc-77045, CTNNBL1 siRNA (m): sc-142622, CTNNBL1 shRNA Plasmid (h): sc-77045-SH, CTNNBL1 shRNA Plasmid (m): sc-142622-SH, CTNNBL1 shRNA (h) Lentiviral Particles: sc-77045-V and CTNNBL1 shRNA (m) Lentiviral Particles: sc-142622-V.

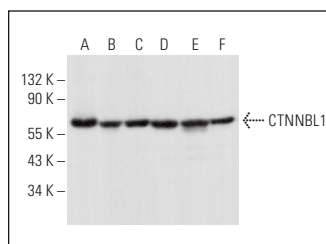
Molecular Weight of CTNNBL1: 65 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, NIH/3T3 nuclear extract: sc-2138 or KNRK whole cell lysate: sc-2214.

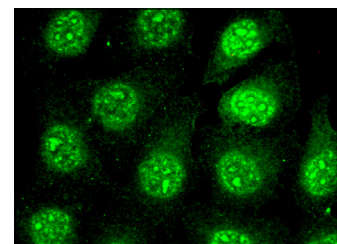
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CTNNBL1 (D-2): sc-398335. Western blot analysis of CTNNBL1 expression in Jurkat (A), NIH/3T3 (B) and KNRK (C) nuclear extracts and K-562 (D), HEL 92.1.7 (E) and PC-12 (F) whole cell lysates.



CTNNBL1 (D-2): sc-398335. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and nucleolar localization.

## PROTOCOLS

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