SANTA CRUZ BIOTECHNOLOGY, INC.

Conductin (H-260): sc-20784

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

β-catenin is a component of both the cadherin cell adhesion system and the Wnt signaling pathway. Wnt signaling increases the amount of β-catenin, by preventing its ubiquitination and degredation, allowing its direct interaction with transcription factors of the lymphoid enhancer factor-T cell factor family and modulation of gene expression. Axin is involved in the degradation of β-catenin by acting as a scaffold to form a complex between β-catenin, adenomatous polyposis coli (APC), and GSK-3β. APC, which is phosphorylated by GSK-3β, induces degradation of β-catenin, thus inhibiting Wnt signal transduction. Conductin is 45% identical to axin and appears to play a similar role to axin in the Wnt signaling pathway.

REFERENCES

1. Hulsken, J., et al. 1994. E-cadherin and APC compete for the interaction with β-catenin and the cytoskeleton. J. Cell. Biol. 127: 2061-2069.
2. Behrens, J., et al. 1996. Functional interaction of β-catenin with the transcription factor LEF-1. Nature 382: 638-642.
3. Zeng, L., et al. 1997. The mouse fused locus encodes axin, an inhibitor of the Wnt signaling pathway that regulates embryonic axis formation. Cell 90: 181-192.
4. Aberle, H., et al. 1997. β-catenin is a target for the ubiquitin-proteasome pathway. EMBO J. 16: 3797-3804.
5. Behrens, J., et al. 1998. Functional interaction of an axin homolog, conductin, with β-catenin, APC, and GSK3β. Science 280: 596-599.

CHROMOSOMAL LOCATION

Genetic locus: AXIN2 (human) mapping to 17q24.1; Axin2 (mouse) mapping to 11 E1.

SOURCE

Conductin (H-260) is a rabbit polyclonal antibody raised against amino acids 541-800 mapping near the C-terminus of Conductin 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.

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.

PROTOCOLS

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

APPLICATIONS

Conductin (H-260) is recommended for detection of Conductin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

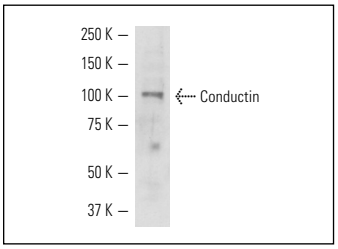
Conductin (H-260) is also recommended for detection of conductin in additional species, including equine and canine.

Suitable for use as control antibody for Conductin siRNA (h): sc-35087, Conductin siRNA (m): sc-35088, Conductin shRNA Plasmid (h): sc-35087-SH, Conductin shRNA Plasmid (m): sc-35088-SH, Conductin shRNA (h) Lentiviral Particles: sc-35087-V and Conductin shRNA (m) Lentiviral Particles: sc-35088-V.

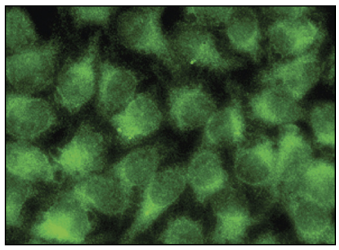
Molecular Weight of Conductin: 100 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, DU 145 nuclear extract: sc-24960 or SW480 cell lysate: sc-2219.

DATA



Conductin (H-260): sc-20784. Western blot analysis of Conductin expression in DU 145 nuclear extract.



Conductin (H-260): sc-20784. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Doble, B.W., et al. 2007. Functional redundancy of GSK-3α and GSK-3β in Wnt/β-catenin signaling shown by using an allelic series of embryonic stem cell lines. Dev. Cell 12: 957-971.
2. Lluis, F., et al. 2008. Periodic activation of Wnt/β-catenin signaling enhances somatic cell reprogramming mediated by cell fusion. Cell Stem Cell 3: 493-507.