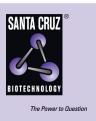
## SANTA CRUZ BIOTECHNOLOGY, INC.

# Axin (AT1A4): sc-517389



## BACKGROUND

 $\beta$ -catenin is a component of both the cadherin cell adhesion system and the Wnt signaling pathway. Wnt signaling increases the amount of  $\beta$ -catenin by preventing its ubiquitination and degradation, 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  $\beta$ -catenin by acting as a scaffold to form a complex between  $\beta$ -catenin, adenomatous polyposis coli (APC) and GSK-3 $\beta$ . APC, which is phosphorylated by GSK-3 $\beta$ , induces degradation of  $\beta$ -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  $\beta$ -catenin and the cytoskeleton. J. Cell Biol. 127: 2061-2069.
- 2. Behrens, J., et al. 1996. Functional interaction of  $\beta$ -catenin with the transcription factor LEF-1. Nature 382: 638-642.
- 3. Aberle, H., et al. 1997.  $\beta$ -catenin is a target for the ubiquitin-proteasome pathway. EMBO J. 16: 3797-3804.
- 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.
- Behrens, J., et al. 1998. Functional interaction of an Axin homolog, Conductin, with β-catenin, APC and GSK-3β. Science 280: 596-599.

## CHROMOSOMAL LOCATION

Genetic locus: AXIN1 (human) mapping to 16p13.3.

## SOURCE

Axin (AT1A4) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 546-752 of Axin of human origin.

## PRODUCT

Each vial contains 100  $\mu g$  IgG\_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **APPLICATIONS**

Axin (AT1A4) is recommended for detection of Axin of human origin by Western Blotting (starting dilution 1:200, 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).

Suitable for use as control antibody for Axin siRNA (h): sc-41449, Axin shRNA Plasmid (h): sc-41449-SH and Axin shRNA (h) Lentiviral Particles: sc-41449-V.

Molecular Weight of Axin: 95 kDa.

## **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## **STORAGE**

Store at 4° C, \*\*D0 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 for detailed protocols and support products.