



# Conductin siRNA (m): sc-35088

## 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

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- Aberle, H., Bauer, A., Stappert, J., Kispert, A. and Kemler, R. 1997.  $\beta$ -catenin is a target for the ubiquitin-proteasome pathway. *EMBO J.* 16: 3797-3804.
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- Behrens, J., Jerchow, B.A., Würtele, M., Grimm, J., Asbrand, C., Wirtz, R., Kühl, M., Wedlich, D. and Birchmeier, W. 1998. Functional interaction of an Axin homolog, conductin, with  $\beta$ -catenin, APC, and GSK3 $\beta$ . *Science* 280: 596-599.

## CHROMOSOMAL LOCATION

Genetic locus: Axin2 (mouse) mapping to 11 E1.

## PRODUCT

Conductin siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Conductin shRNA Plasmid (m): sc-35088-SH and Conductin shRNA (m) Lentiviral Particles: sc-35088-V as alternate gene silencing products.

For independent verification of Conductin (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-35088A, sc-35088B and sc-35088C.

## PROTOCOLS

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

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Conductin siRNA (m) is recommended for the inhibition of Conductin expression in mouse cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Conductin gene expression knockdown using RT-PCR Primer: Conductin (m)-PR: sc-35088-PR (20  $\mu$ l, 551 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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