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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

ICAT siRNA (m): sc-45273

BACKGROUND

ICAT interacts directly with β-catenin and interferes with the Wnt signaling pathway. Specifically, ICAT prevents the interaction of β-catenin with TCF-4 and inhibits β-catenin—TCF-4-mediated transactivation. The negative regulatory effect of ICAT on the Wnt signaling pathway appears to inhibit tumor cell proliferation. ICAT also induces G2 arrest followed by cell death in colorectal tumor cells. The ectopic induction of ICAT inhibits the expression of β3 Tubulin and thus neuronal differentiation in embryonal carcinoma P19 cells. Structural characteristics of ICAT include a three-helix bundle and a C-terminal tail. The gene encoding human ICAT maps to chromosome 1p36.22.

REFERENCES

1. Tago, K., Nakamura, T., Nishita, M., Hyodo, J., Nagai, S., Murata, Y., Adachi, S., Ohwada, S., Morishita, Y., Shibuya, H. and Akiyama, T. 2000. Inhibition of Wnt signaling by ICAT, a novel β-catenin-interacting protein. Genes Dev. 14: 1741-1749.
2. Sekiya, T., Nakamura, T., Kazuki, Y., Oshimura, M., Kohu, K., Tago, K., Ohwada, S. and Akiyama, T. 2002. Overexpression of ICAT induces G_2 arrest and cell death in tumor cell mutants for adenomatous polyposis coli, β-catenin, or Axin. Cancer Res. 62:3322-3326.
3. Graham, T.A., Clements, W.K., Kimelman, D. and Xu, W. 2002. The crystal structure of the β-catenin/ICAT complex reveals the inhibitory mechanism of ICAT. Mol. Cell 10: 563-571.
4. Reifenberger, J., Knobbe, C.B., Wolter, M., Blaschke, B., Schulte, K.W., Pietsch, T., Ruzicka, T. and Reifenberger, G. 2002. Molecular genetic analysis of malignant melanomas for aberrations of the Wnt signaling pathway genes CTNNB1, APC, ICAT and BTRC. Int. J. Cancer 100: 549-556.
5. Lyu, J., Costantini, F., Jho, E.H. and Joo, C.K. 2003. Ectopic expression of Axin blocks neuronal differentiation of embryonic carcinoma P19 cells. J. Biol. Chem. 278: 13487-13495.

CHROMOSOMAL LOCATION

Genetic locus: Ctnnbip1 (mouse) mapping to 4 E2.

PRODUCT

ICAT siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ICAT shRNA Plasmid (m): sc-45273-SH and ICAT shRNA (m) Lentiviral Particles: sc-45273-V as alternate gene silencing products.

For independent verification of ICAT (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3 nmol of lyophilized siRNA. These include: sc-45273A, sc-45273B and sc-45273C.

PROTOCOLS

See our web site at www.scbt.com or our catalog 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

ICAT siRNA (m) is recommended for the inhibition of ICAT 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 µM in 66 µl. 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.

GENE EXPRESSION MONITORING

ICAT (G-16): sc-25175 is recommended as a control antibody for monitoring of ICAT gene expression knockdown by Western blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ICAT gene expression knockdown using RT-PCR Primer: ICAT (m)-PR: sc-45273-PR (20 µl). 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.