SANTA CRUZ BIOTECHNOLOGY, INC.

# INO80C siRNA (m): sc-142770

## BACKGROUND

INO80C (INO80 complex subunit C), also known as C18orf37 or IES6, is a 192 amino acid protein that exists as multiple alternatively spliced isoforms and functions as a component of the multi-subunit chromatin-remodeling INO80 complex. The gene encoding INO80C maps to human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include Trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

## REFERENCES


1. Yoshikawa, T., et al. 1997. Isolation of chromosome 18-specific brain transcripts as positional candidates for bipolar disorder. Am. J. Med. Genet. 74: 140-149.
2. Esterling, L.E., et al. 1997. An integrated physical map of 18p11.2: a susceptibility region for bipolar disorder. Mol. Psychiatry 2: 501-504.
3. Petek, E., et al. 2003. Characterisation of a 19-year-old "long-term survivor" with Edwards syndrome. Genet. Couns. 14: 239-244.
4. Jin, J., et al. 2005. A mammalian chromatin remodeling complex with similarities to the yeast INO80 complex. J. Biol. Chem. 280: 41207-41212.
5. Grosso, S., et al. 2005. Chromosome 18 aberrations and epilepsy: a review. Am. J. Med. Genet. A 134: 88-94.
6. Nusbaum, C., et al. 2005. DNA sequence and analysis of human chromosome 18. Nature 437: 551-555.
7. Pickard, B.S., et al. 2005. Candidate psychiatric illness genes identified in patients with pericentric inversions of chromosome 18. Psychiatr. Genet. 15: 37-44.
8. Farrants, A.K. 2008. Chromatin remodelling and actin organisation. FEBS Lett. 582: 2041-2050.
9. Conaway, R.C., et al. 2009. The INO80 chromatin remodeling complex in transcription, replication and repair. Trends Biochem. Sci. 34: 71-77.


## CHROMOSOMAL LOCATION

Genetic locus: Ino80c (mouse) mapping to 18 A2.

## PRODUCT

INO80C siRNA (m) is a pool of 2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see INO80C shRNA Plasmid (m): sc-142770-SH and INO80C shRNA (m) Lentiviral Particles: sc-142770-V as alternate gene silencing products.

For independent verification of INO80C (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-142770A and sc-142770B.

## 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

INO80C siRNA (m) is recommended for the inhibition of INO80C 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor INO80C gene expression knockdown using RT-PCR Primer: INO80C (m)-PR: sc-142770-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.

## PROTOCOLS

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