SANTA CRUZ BIOTECHNOLOGY, INC.

# Raver2 siRNA (h): sc-88642

## BACKGROUND

Raver2, also known as Ribonucleoprotein PTB-binding 2, is a 691 amino acid protein that contains three RRM (RNA recognition motif) domains, two putative nuclear localization signals and a central leucine-rich region. Ubiquitously expressed, Raver2 highly expressed in brain and lowly expressed in pancreas and testis. In adult mice, Raver2 shows restricted expression in brain, lung, and kidney, whereas Raver1 is ubiquitously expressed. Raver2 interacts with hnRNP (heterogeneous nuclear ribonucleoprotein polypeptide I) and Raver1 and may bind single stranded nucleic acids. The conserved mode of polypyrimidine tract-binding protein (PTB) binding suggests that Raver2, like Raver1, may function as a modulator of hnRNP activity. Raver2 is phosphorylated upon DNA damage, probably by ATM or ATR. Existing as two alternatively spliced isoforms, the Raver2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 1p31.3.

## REFERENCES


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2. Kleinhenz, B., et al. 2005. Raver2, a new member of the hnRNP family. FEBS Lett. 579: 4254-4258.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 60995. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Zieseniss, A., et al. 2007. Raver1 is an integral component of muscle contractile elements. Cell Tissue Res. 327: 583-594.
5. Lahmann, I., et al. 2008. The hnRNP and cytoskeletal protein raver1 contributes to synaptic plasticity. Exp. Cell Res. 314: 1048-1060.
6. Norton, J.T., et al. 2009. The perinucleolar compartment is directly associated with DNA. J. Biol. Chem. 284: 4090-4101.
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## CHROMOSOMAL LOCATION

Genetic locus: RAVER2 (human) mapping to 1p31.3.

## PRODUCT

Raver2 siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Raver2 shRNA Plasmid (h): sc-88642-SH and Raver2 shRNA (h) Lentiviral Particles: sc-88642-V as alternate gene silencing products.

For independent verification of Raver2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-88642A, sc-88642B and sc-88642C.

## 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

Raver2 siRNA (h) is recommended for the inhibition of Raver2 expression in human 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 Raver2 gene expression knockdown using RT-PCR Primer: Raver2 (h)-PR: sc-88642-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.