SANTA CRUZ BIOTECHNOLOGY, INC.

# DIRAS2 siRNA (h): sc-92616

## BACKGROUND

Members of the Ras superfamily of small GTP-binding proteins are critical mediators of diverse cell signaling pathways, including those leading to cell proliferation, cytoskeletal organization and secretion. The counter-conversion of the active GTP-bound form of these proteins to their inactive GDP-bound form is influenced by two types of regulatory proteins: those that alter the intrinsic GTPase activity of the GTP-binding proteins and those that alter the rate of GDP/GTP exchange. DIRAS2 (GTP-binding protein Di-Ras2), also known as distinct subgroup of the Ras family member 2, is a 199 amino acid protein belonging to the small GTPase superfamily and Di-Ras family. DIRAS2 displays low GTPase activity and exists predominantly in the GTP-bound form. Highly expressed in brain, DIRAS2 is localized to the cytoplasmic side of the cell membrane, potentially as a lipid-anchor. The gene encoding DIRAS2 maps to human chromosome 9q22.2.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: DIRAS2 (human) mapping to 9q22.2.

## PRODUCT

DIRAS2 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 DIRAS2 shRNA Plasmid (h): sc-92616-SH and DIRAS2 shRNA (h) Lentiviral Particles: sc-92616-V as alternate gene silencing products.

For independent verification of DIRAS2 (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-92616A, sc-92616B and sc-92616C.

## 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

DIRAS2 siRNA (h) is recommended for the inhibition of DIRAS2 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 DIRAS2 gene expression knockdown using RT-PCR Primer: DIRAS2 (h)-PR: sc-92616-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.