SANTA CRUZ BIOTECHNOLOGY, INC.

# DISP1 siRNA (h): sc-88762

## BACKGROUND

DISP1 (protein dispatched homolog 1), also known as DISPA, is a 1,524 amino acid multi-pass membrane protein containing a putative sterol-sensing (SSD) domain. Key regulatory genes in lipoprotein signaling and cholesterol homeostasis have been identified to contain the SSD domain. Belonging to the dispatched family, DISP1 is required for effective production of the hedgehog signal. DISP1 regulates the release and extracellular accumulation of cholesterol-modified hedgehog proteins, which are critical for growth and tissue patterning during development. The gene encoding DISP1 maps to human chromosome 1q41. Chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. Notable diseases associated with chromosome 1 include Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: DISP1 (human) mapping to 1q41.

## PRODUCT

DISP1 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 DISP1 shRNA Plasmid (h): sc-88762-SH and DISP1 shRNA (h) Lentiviral Particles: sc-88762-V as alternate gene silencing products.

For independent verification of DISP1 (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-88762A, sc-88762B and sc-88762C.

## 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

DISP1 siRNA (h) is recommended for the inhibition of DISP1 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 DISP1 gene expression knockdown using RT-PCR Primer: DISP1 (h)-PR: sc-88762-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.