SANTA CRUZ BIOTECHNOLOGY, INC.

DOLPP1 siRNA (h): sc-92552

BACKGROUND

DOLPP1 (dolichyl pyrophosphate phosphatase 1), also known as LSFR2, is a 238 amino acid member of the dolichyldiphosphatase protein family. Localized to the endoplasmic reticulum membrane, DOLPP1 is involved in protein modification, specifically glycosylation. DOLPP1 hydrolyzes dolichyl diphosphate into dolichyl phosphate. DOLPP1 activity is required for efficient N-glycosylation and for maintaining optimal levels of dolichol-linked oligosaccharides. DOLPP1 has been found to not act on phosphatidate. The gene that encodes DOLPP1 maps to human chromosome 9, which consists of about 145 million bases and 4% of the human genome, encoding nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DOLPP1 (human) mapping to 9q34.11.

PRODUCT

DOLPP1 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 DOLPP1 shRNA Plasmid (h): sc-92552-SH and DOLPP1 shRNA (h) Lentiviral Particles: sc-92552-V as alternate gene silencing products.

For independent verification of DOLPP1 (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-92552A, sc-92552B and sc-92552C.

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

DOLPP1 siRNA (h) is recommended for the inhibition of DOLPP1 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 DOLPP1 gene expression knockdown using RT-PCR Primer: DOLPP1 (h)-PR: sc-92552-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.