SANTA CRUZ BIOTECHNOLOGY, INC.

DHDDS siRNA (m): sc-143026

BACKGROUND

DHDDS (dehydrodolichyl diphosphate synthase), also known as CIT, CPT, HDS or Dedol-PP synthase, is a 333 amino acid protein that catalyzes *cis*-prenyl chain elongation to form the polyprenyl backbone of dolichol. A member of the UPP synthase family, DHDDS is highly expressed in kidney and testis, with lower levels found in spleen, thymus and heart. DHDDS exists as three alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 1p36.11. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Dhdds (mouse) mapping to 4 D3.

PRODUCT

DHDDS siRNA (m) is a target-specific 19-25 nt siRNA 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 DHDDS shRNA Plasmid (m): sc-143026-SH and DHDDS shRNA (m) Lentiviral Particles: sc-143026-V as alternate gene silencing products.

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

DHDDS siRNA (m) is recommended for the inhibition of DHDDS 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 DHDDS gene expression knockdown using RT-PCR Primer: DHDDS (m)-PR: sc-143026-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.