SANTA CRUZ BIOTECHNOLOGY, INC.

dolichol kinase siRNA (m): sc-143141

BACKGROUND

Dolichol kinase (DOLK), also known as KIAA1094 or TMEM15, is a 538 amino acid member of the polyprenol kinase protein family. Localized to the endoplasmic reticulum membrane, dolichol kinase catalyzes the CTP-mediated phosphorylation of dolichol. Dolichol kinase also participates in the synthesis of Dol-p-Man, which is essential for synthesis of O-linked and N-linked oligosaccharides and GPI anchors. Dolichol kinase is ubiquitously expressed and is encoded by a gene mapping to human chromosome 9q34.11. Defects in the gene that encodes dolichol kinase are the cause of congenital disorder of glycosylation type 1M (CDG1M), which results in under-glycosylated serum glycoproteins. CDG1M is very severe and causes death in early infancy.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Dolk (mouse) mapping to 2 B.

PRODUCT

dolichol kinase 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 dolichol kinase shRNA Plasmid (m): sc-143141-SH and dolichol kinase shRNA (m) Lentiviral Particles: sc-143141-V as alternate gene silencing products.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support 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

dolichol kinase siRNA (m) is recommended for the inhibition of dolichol kinase 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 dolichol kinase gene expression knockdown using RT-PCR Primer: dolichol kinase (m)-PR: sc-143141-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.