

OGDHL siRNA (m): sc-150183

BACKGROUND

OGDHL (2-oxoglutarate dehydrogenase-like, mitochondrial), also known as KIAA1290, 2-oxoglutarate dehydrogenase complex component E1-like or α -ketoglutarate dehydrogenase-like, is a 1,010 amino acid protein belonging to the α -ketoglutarate dehydrogenase family. OGDHL, whose cofactor is thiamine pyrophosphate, is localized to the mitochondrion matrix and shows cancer-specific methylation in breast tissues. The gene encoding OGDHL maps to human chromosome 10q11.23 and mouse chromosome 14 B. Making up 4.5% of the human genome, chromosome 10 encodes roughly 800 genes including PTEN, a tumor suppressor gene that has been linked to the development of Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging.

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CHROMOSOMAL LOCATION

Genetic locus: Ogdhl (mouse) mapping to 14 B.

PRODUCT

OGDHL siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see OGDHL shRNA Plasmid (m): sc-150183-SH and OGDHL shRNA (m) Lentiviral Particles: sc-150183-V as alternate gene silencing products.

For independent verification of OGDHL (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-150183A, sc-150183B and sc-150183C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

OGDHL siRNA (m) is recommended for the inhibition of OGDHL 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 μ M in 66 μ l. 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 OGDHL gene expression knockdown using RT-PCR Primer: OGDHL (m)-PR: sc-150183-PR (20 μ l). 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.