

C10orf129 siRNA (h): sc-90546

BACKGROUND

C10orf129 (chromosome 10 open reading frame 129), also known as ACSM6 (acyl-coenzyme A synthetase ACSM6, mitochondrial), is a 480 amino acid protein that belongs to the ATP-dependent AMP-binding enzyme family and exists as three alternatively spliced isoforms. Localizing to mitochondria, C10orf129 catalyzes ATP, an acid and CoA to AMP, diphosphate and acyl-CoA, as well as GTP and lipoate to diphosphate and lipoyl-GMP. C10orf129 exists as a monomer and is encoded by a gene that maps to human chromosome 10, which spans nearly 135 million base pairs, makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

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CHROMOSOMAL LOCATION

Genetic locus: C10orf129 (human) mapping to 10q23.33.

PROTOCOLS

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

PRODUCT

C10orf129 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see C10orf129 shRNA Plasmid (h): sc-90546-SH and C10orf129 shRNA (h) Lentiviral Particles: sc-90546-V as alternate gene silencing products.

For independent verification of C10orf129 (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-90546A, sc-90546B and sc-90546C.

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

C10orf129 siRNA (h) is recommended for the inhibition of C10orf129 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 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 C10orf129 gene expression knockdown using RT-PCR Primer: C10orf129 (h)-PR: sc-90546-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.