SANTA CRUZ BIOTECHNOLOGY, INC.

C11orf9 siRNA (h): sc-96447

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The Power to Question

BACKGROUND

C11orf9 (chromosome 11 open reading frame 9), also known as MRF (myelin gene regulatory factor), Ndt80, KIAA0954 or MGC10781, is a 1,151 amino acid single-pass membrane protein that localizes to nucleus. A member of the MRF family, C11orf9 is expressed in the ARPE-19 cell line, brainstem, uterus and, to a lesser extent, in basal ganglion and liver. C11orf9 is weakly expressed in cerebellum and retina. C11orf9 contains one NDT80 DNA-binding domain and acts as a transcription factor that is required for expression of central nervous system (CNS) myelin genes such as MBP and MOG, thereby playing a central role in oligodendrocyte maturation and CNS myelination. C11orf9 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 11, which consists of approximately 135 million base pairs and 1,400 genes. Chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome.

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CHROMOSOMAL LOCATION

Genetic locus: MYRF (human) mapping to 11q12.2.

PRODUCT

C11orf9 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 C11orf9 shRNA Plasmid (h): sc-96447-SH and C11orf9 shRNA (h) Lentiviral Particles: sc-96447-V as alternate gene silencing products.

For independent verification of C11orf9 (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-96447A, sc-96447B and sc-96447C.

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

C11orf9 siRNA (h) is recommended for the inhibition of C11orf9 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 C11orf9 gene expression knockdown using RT-PCR Primer: C11orf9 (h)-PR: sc-96447-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.