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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

LOH12CR1 siRNA (m): sc-149011

BACKGROUND

LOH12CR1 (loss of heterozygosity 12 chromosomal region 1 protein) is a 196 amino acid protein that belongs to the LOH12CR1 family. While widely expressed, LOH12CR1 exists as two alternatively spliced isoforms. The gene that encodes LOH12CR1 consists of 109,828 bases and maps to human chromosome 12p13.2. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome is caused by a mutant form of the PTPN11 gene product, SH-PTP2, which maps to chromosome 12. Chromosome 12 is also home to a homeobox gene cluster and the natural killer complex gene cluster. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms which vary in severity depending on the extent of mosaicism. It is most severe in cases of complete trisomy.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Loh12cr1 (mouse) mapping to 6 G1.

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.

PRODUCT

LOH12CR1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LOH12CR1 shRNA Plasmid (m): sc-149011-SH and LOH12CR1 shRNA (m) Lentiviral Particles: sc-149011-V as alternate gene silencing products.

For independent verification of LOH12CR1 (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-149011A, sc-149011B and sc-149011C.

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

LOH12CR1 siRNA (m) is recommended for the inhibition of LOH12CR1 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 LOH12CR1 gene expression knockdown using RT-PCR Primer: LOH12CR1 (m)-PR: sc-149011-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.