SANTA CRUZ BIOTECHNOLOGY, INC.

CLN6 siRNA (h): sc-60409

BACKGROUND

CLN6, a 311 amino acid protein, has seven predicted transmembrane domains and is conserved across vertebrates. The CLN6 protein localizes to the endoplasmic reticulum but contributes to lysosomal function. Mutations in the CLN6 gene cause variant late-onset infantile neuronal ceroid lipofuscinosis (vLINCL), a lysosomal storage disorder marked by progressive mental deterioration and blindness; part of a group of severe inherited neurodegenerative disorders affecting children wherein lysosomes accumulate storage material, causing the death of neurons. CLN6 is one of eight proteins, including CLN1-8, that are associated with NCL.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CLN6 (human) mapping to 15q23.

PRODUCT

CLN6 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 CLN6 shRNA Plasmid (h): sc-60409-SH and CLN6 shRNA (h) Lentiviral Particles: sc-60409-V as alternate gene silencing products.

For independent verification of CLN6 (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-60409A, sc-60409B and sc-60409C.

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

CLN6 siRNA (h) is recommended for the inhibition of CLN6 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 CLN6 gene expression knockdown using RT-PCR Primer: CLN6 (h)-PR: sc-60409-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.

PROTOCOLS

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