SANTA CRUZ BIOTECHNOLOGY, INC.

KCNE1L siRNA (h): sc-91235

BACKGROUND

KCNE genes encode small, single transmembrane domain peptides that associate with pore-forming α-subunits to form K^+ channels with unique characteristics. Voltage-gated K^+ channels in the plasma membrane control the repolarization and the frequency of action potentials in neurons, muscles and other excitable cells. KCNE1L (KCNE1-like), also known as KCNE5, potassium voltage-gated channel subfamily E member 1-like protein or AMMECR2, is a 142 amino acid single-pass type I membrane protein belonging to the potassium channel KCNE family. Defects of the KCNE1L gene have been linked to the cardiac and some neurological abnormalities observed in patients with AMME (Alport syndrome, mental retardation, midface hypoplasia and elliptocytosis) contiguous gene syndrome. KCNE1L is primarily expressed in skeletal muscle, brain, placenta, spinal cord and heart.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KCNE1L (human) mapping to Xq23.

PROTOCOLS

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

PRODUCT

KCNE1L 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 KCNE1L shRNA Plasmid (h): sc-91235-SH and KCNE1L shRNA (h) Lentiviral Particles: sc-91235-V as alternate gene silencing products.

For independent verification of KCNE1L (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-91235A, sc-91235B and sc-91235C.

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

KCNE1L siRNA (h) is recommended for the inhibition of KCNE1L 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 KCNE1L gene expression knockdown using RT-PCR Primer: KCNE1L (h)-PR: sc-91235-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.