SANTA CRUZ BIOTECHNOLOGY, INC.

KCP2 siRNA (m): sc-146377

BACKGROUND

KCP2 (keratinocyte-associated protein 2), also known as KRTCAP2, is a 162 amino acid protein that belongs to the KRTCAP2 family. Localizing to the membrane, KCP is expressed in skin, heart, placenta, liver, skeletal muscle, kidney and pancreas. KCP2 is a subunit of the oligosaccharyltransferase (OST) complex, which can form stable interactions with Sec61 and/or TRAP complexes. Interacting with amyloid precursor protein (APP), reduced levels of KCP2 affects APP processing, resulting in a reduction of mature APP, and an accumulation of the C-terminal fragments. Increased levels of KCP2 may result in an increase in the active γ-secretase complex. The gene encoding KCP2 maps to human chromosome 1q22. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Krtcap2 (mouse) mapping to 3 F1.

PROTOCOLS

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

PRODUCT

KCP2 siRNA (m) is a target-specific 19-25 nt siRNA 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 KCP2 shRNA Plasmid (m): sc-146377-SH and KCP2 shRNA (m) Lentiviral Particles: sc-146377-V as alternate gene silencing products.

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

KCP2 siRNA (m) is recommended for the inhibition of KCP2 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 KCP2 gene expression knockdown using RT-PCR Primer: KCP2 (m)-PR: sc-146377-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.