SANTA CRUZ BIOTECHNOLOGY, INC.

Kremen-2 siRNA (h): sc-93191

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The Power to Question

BACKGROUND

Kremen-2, also known as KRM2, is a 462 amino acid single-pass type I membrane protein that interacts with XTP3-B. Existing as four alternatively spliced isoforms, Kremen-2 contains one CUB domain, one kringle domain and one WSC domain. As a receptor for Dickkopf (Dkk-1) protein, Kremen-2 cooperates with Dkk-1 to block Wnt/β-catenin signaling. Kremen-2 forms a ternary complex with Dkk1 and LRP6 to induce rapid endocytosis and removal of the Wnt receptor LRP6 from the plasma membrane. The gene that encodes Kremen-2 consists of approximately 4,222 bases and maps to human chromosome 16p13.3. Encoding over 900 genes and consisting of approximately 90 million base pairs, chromosome 16 makes up nearly 3% of the human genome and is associated with a variety of genetic disorders, such as giant axonal neuropathy, Rubinstein-Taybi syndrome and Crohn's disease.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: KREMEN2 (human) mapping to 16p13.3.

PRODUCT

Kremen-2 siRNA (h) is a pool of 2 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 Kremen-2 shRNA Plasmid (h): sc-93191-SH and Kremen-2 shRNA (h) Lentiviral Particles: sc-93191-V as alternate gene silencing products.

For independent verification of Kremen-2 (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-93191A and sc-93191B.

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

Kremen-2 siRNA (h) is recommended for the inhibition of Kremen-2 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 Kremen-2 gene expression knockdown using RT-PCR Primer: Kremen-2 (h)-PR: sc-93191-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.