



Crim2 siRNA (m): sc-142570

BACKGROUND

CRIM2 (cysteine-rich motor neuron 2 protein), also known as cysteine-rich BMP regulator 2, NET67, KCP (kielin/chordin-like protein) or KCP-1, is a 1,503 amino acid secreted protein that enhances BMP (bone morphogenetic protein) signaling. Expressed in kidney and brain, CRIM2 inhibits TGF β 1 and Activin A-mediated signaling pathways. CRIM2 contains one VWFD domain, a TIL (trypsin inhibitory-like) domain, 17 VWFC domains, and exists as 2 alternatively spliced isoforms. The gene encoding CRIM2 maps to human chromosome 7q32.1, which houses over 1,000 genes, comprises nearly 5% of the human genome and has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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3. Lin, J., Patel, S.R., Cheng, X., Cho, E.A., Levitan, I., Ullenbruch, M., Phan, S.H., Park, J.M. and Dressler, G.R. 2005. Kielin/chordin-like protein, a novel enhancer of BMP signaling, attenuates renal fibrotic disease. *Nat. Med.* 11: 387-393.
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5. Reiner, O., Sapoznik, S. and Sapir, T. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.
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CHROMOSOMAL LOCATION

Genetic locus: Kcp (mouse) mapping to 6 A3.3.

PRODUCT

Crim2 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Crim2 shRNA Plasmid (m): sc-142570-SH and Crim2 shRNA (m) Lentiviral Particles: sc-142570-V as alternate gene silencing products.

For independent verification of Crim2 (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-142570A and sc-142570B.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Crim2 siRNA (m) is recommended for the inhibition of Crim2 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 μ M in 66 μ l. 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 Crim2 gene expression knockdown using RT-PCR Primer: Crim2 (m)-PR: sc-142570-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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