



CRP2 siRNA (m): sc-142580

BACKGROUND

CRP2 (cysteine-rich protein 2), also known as cysteine and glycine-rich protein 2, CSRP2, LMO5 (LIM domain only protein 5) or SmLIM (smooth muscle cell LIM protein), is a 193 amino acid nuclear protein that belongs to the CRP family of LIM domain proteins. Highly expressed in smooth muscle of aorta, CRP2 is thought to have a role in embryonic vascular system development and is downregulated following cell injury or PDGF-B exposure. CRP2 contains two LIM zinc-binding domains and is encoded by a gene that maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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3. Jain, M.K., et al. 1996. Molecular cloning and characterization of SmLIM, a developmentally regulated LIM protein preferentially expressed in aortic smooth muscle cells. *J. Biol. Chem.* 271: 10194-10199.
4. Weiskirchen, R., et al. 1997. Cloning, structural analysis, and chromosomal localization of the human CSRP2 gene encoding the LIM domain protein CRP2. *Genomics* 44: 83-93.
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CHROMOSOMAL LOCATION

Genetic locus: *Csrp2* (mouse) mapping to 10 D1.

PRODUCT

CRP2 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 CRP2 shRNA Plasmid (m): sc-142580-SH and CRP2 shRNA (m) Lentiviral Particles: sc-142580-V as alternate gene silencing products.

For independent verification of CRP2 (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-142580A and sc-142580B.

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

CRP2 siRNA (m) is recommended for the inhibition of CRP2 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 CRP2 gene expression knockdown using RT-PCR Primer: CRP2 (m)-PR: sc-142580-PR (20 μ l). 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.