

MESP2 siRNA (h): sc-90260

BACKGROUND

MESP2 (mesoderm posterior 2 homolog), also known as SCD02 or bHLHc6 (class C basic helix-loop-helix protein 6), is a 397 amino acid protein that contains one basic helix-loop-helix (bHLH) domain, a motif that mediates protein dimerization and can bind to the E-box sequence of DNA. Localized to the nucleus, MESP2 functions as a transcription factor that, via its bHLH domain, participates in the epithelialization and the development of the cardiac and somitic mesoderm. MESP2 is involved in somitogenesis and Notch pathways and is encoded by a gene that maps to human chromosome 15q26.1. Defects in the MESP2 gene are the cause of an autosomal recessive disorder known as spondylocostal dysostosis type 2 (SCDO2).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MESP2 (human) mapping to 15q26.1.

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.

PRODUCT

MESP2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MESP2 shRNA Plasmid (h): sc-90260-SH and MESP2 shRNA (h) Lentiviral Particles: sc-90260-V as alternate gene silencing products.

For independent verification of MESP2 (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-90260A, sc-90260B and sc-90260C.

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

MESP2 siRNA (h) is recommended for the inhibition of MESP2 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 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 MESP2 gene expression knockdown using RT-PCR Primer: MESP2 (h)-PR: sc-90260-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.