

FHR-2 siRNA (h): sc-88699

BACKGROUND

The Factor H gene family is a multidomain, multifunctional protein family whose individual members are defined by conserved structural elements and display diverse, yet often overlapping functions. These proteins share a common structural motif, the short consensus repeat (SCR), which is structurally conserved among related genes and between phylogenetically divergent species. Five Factor H-related proteins, FHR-1–5, have been identified. All five are closely linked to the Factor H gene on chromosome 1q31.3. FHR-2, which is synthesized in the liver and contains four SCRs, may be involved in complement regulation or localization. FHR-2 also associate with lipoproteins and may play a role in lipid metabolism. The FHR-2 gene produces two isoforms, designated long and short, which are produced as a result of alternative splicing events.

REFERENCES

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3. Díaz-Guillen, M.A., et al. 1999. A radiation hybrid map of complement Factor H and Factor H-related genes. *Immunogenetics* 49: 549-552.
4. Zipfel, P.F., et al. 1999. The Factor H protein family. *Immunopharmacology* 42: 53-60.
5. Male, D.A., et al. 2000. Complement Factor H: sequence analysis of 221 kb of human genomic DNA containing the entire FH, FHR-1 and FHR-3 genes. *Mol. Immunol.* 37: 41-52.
6. Närkiö-Mäkelä, M., et al. 2001. Complement-regulator Factor H and related proteins in otitis media with effusion. *Clin. Immunol.* 100: 118-126.
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CHROMOSOMAL LOCATION

Genetic locus: CFHR2 (human) mapping to 1q31.3.

PRODUCT

FHR-2 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 FHR-2 shRNA Plasmid (h): sc-88699-SH and FHR-2 shRNA (h) Lentiviral Particles: sc-88699-V as alternate gene silencing products.

For independent verification of FHR-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-88699A, sc-88699B and sc-88699C.

PROTOCOLS

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

FHR-2 siRNA (h) is recommended for the inhibition of FHR-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 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 FHR-2 gene expression knockdown using RT-PCR Primer: FHR-2 (h)-PR: sc-88699-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.