



# hornerin siRNA (h): sc-78887

## BACKGROUND

Hornerin, also known as HRNR, S100A16 or S100a18, is a 2,850 amino acid protein that contains two EF-hand domains and belongs to both the S-100 and S100-fused protein families. Localizing to cytoplasmic and keratohyalin granules, hornerin has been found in healthy epidermis, the outer root sheath of scalp hair follicles, and in psoriatic and regenerating skin following wound-healing. Hornerin is suggested to play a role in cornification and is encoded by a gene that maps to human chromosome 1q21.3. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

## REFERENCES

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7. Stemmler, S., et al. 2009. Variation in genes of the epidermal differentiation complex in German atopic dermatitis patients. *Int. J. Immunogenet.* 36: 217-222.
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## CHROMOSOMAL LOCATION

Genetic locus: HRNR (human) mapping to 1q21.3.

## PRODUCT

hornerin siRNA (h) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see hornerin shRNA Plasmid (h): sc-78887-SH and hornerin shRNA (h) Lentiviral Particles: sc-78887-V as alternate gene silencing products.

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

## APPLICATIONS

hornerin siRNA (h) is recommended for the inhibition of hornerin 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  $\mu$ M in 66  $\mu$ 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 hornerin gene expression knockdown using RT-PCR Primer: hornerin (h)-PR: sc-78887-PR (20  $\mu$ 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](http://www.scbt.com) for detailed protocols and support products.