

Keratin 34 siRNA (h): sc-93658

BACKGROUND

The keratin multigene family is made of the "soft" epithelial cytokeratins and the "hard" hair keratins. While the epithelial cytokeratins are involved in the layering and formation of epithelia, the hair keratins are responsible for creating nails and hair. There are two types of hair keratins: the acidic type I hair keratin proteins and the basic/neutral type II hair keratin proteins. Keratin 34 (K34), also known as HA4, hair keratin type I Ha4, KRTHA4 or KRT34, is a 436 amino acid type I hair keratin belonging to the intermediate filament family. Expressed in the hair follicle, Keratin 34 forms a heterodimer with type II keratins to form nails and hair and is encoded by a gene located on human chromosome 17q21.2 and mouse chromosome 11 D.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KRT34 (human) mapping to 17q21.2.

PRODUCT

Keratin 34 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 Keratin 34 shRNA Plasmid (h): sc-93658-SH and Keratin 34 shRNA (h) Lentiviral Particles: sc-93658-V as alternate gene silencing products.

For independent verification of Keratin 34 (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-93658A, sc-93658B and sc-93658C.

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

Keratin 34 siRNA (h) is recommended for the inhibition of Keratin 34 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 Keratin 34 gene expression knockdown using RT-PCR Primer: Keratin 34 (h)-PR: sc-93658-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.