

Hint3 siRNA (h): sc-95305

BACKGROUND

Hint3 (histidine triad nucleotide-binding protein 3) is a 182 amino acid cytoplasmic and nuclear protein that contains one HIT domain and belongs to the HINT family, which additionally includes Hint1 and Hint2. Widely expressed and existing as a homodimer, Hint1 functions to hydrolyze adenosine 5'-monophosphoramidate substrates, such as AMP-N-alanine methyl ester, AMP-morpholidate and AMP- α -acetyl lysine methyl ester, and may also inhibit PKC function and influence apoptosis. Knockdown of Hint1 mRNA results in downregulation of p53 and Bax, suggesting that Hint1 is a haplo-insufficient tumor suppressor. Also, it is suspected that promoter hypermethylation of the gene encoding Hint1 may play a role in hepatocarcinogenesis. Hint3 can exist as a dimer or octamer, and functions in the hydrolysis of phosphoramidate and acyl-adenylate substrates. The gene encoding Hint3 maps to human chromosome 6q22.32.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HINT3 (human) mapping to 6q22.32.

PRODUCT

Hint3 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 Hint3 shRNA Plasmid (h): sc-95305-SH and Hint3 shRNA (h) Lentiviral Particles: sc-95305-V as alternate gene silencing products.

For independent verification of Hint3 (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-95305A, sc-95305B and sc-95305C.

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

Hint3 siRNA (h) is recommended for the inhibition of Hint3 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 Hint3 gene expression knockdown using RT-PCR Primer: Hint3 (h)-PR: sc-95305-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.