

ZCCHC6 siRNA (m): sc-155482

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZCCHC6 (zinc finger, CCHC domain containing 6), also known as TUTase 7 (terminal uridylyltransferase 7), PAPD6 (PAP associated domain containing 6) or HS2, is a 1,495 amino acid uridylyltransferase that mediates RNA uridylation. A member of the DNA polymerase type-B-like family, ZCCHC6 contains three CCHC-type zinc fingers and two PAP-associated domains, and exists as six alternatively spliced isoforms. The gene encoding ZCCHC6 maps to human chromosome 9q21.33 and mouse chromosome 13 B2.

REFERENCES

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4. Huntley, S., et al. 2006. A comprehensive catalog of human KRAB-associated zinc finger genes: insights into the evolutionary history of a large family of transcriptional repressors. *Genome Res.* 16: 669-677.
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6. Rissland, O.S., et al. 2007. Efficient RNA polyuridylation by noncanonical poly(A) polymerases. *Mol. Cell. Biol.* 27: 3612-3624.
7. Mullen, T.E., et al. 2008. Degradation of histone mRNA requires oligouridylation followed by decapping and simultaneous degradation of the mRNA both 5' to 3' and 3' to 5'. *Genes Dev.* 22: 50-65.
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CHROMOSOMAL LOCATION

Genetic locus: Zcchc6 (mouse) mapping to 13 B2.

PRODUCT

ZCCHC6 siRNA (m) 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 ZCCHC6 shRNA Plasmid (m): sc-155482-SH and ZCCHC6 shRNA (m) Lentiviral Particles: sc-155482-V as alternate gene silencing products.

For independent verification of ZCCHC6 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-155482A, sc-155482B and sc-155482C.

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

ZCCHC6 siRNA (m) is recommended for the inhibition of ZCCHC6 expression in mouse 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 ZCCHC6 gene expression knockdown using RT-PCR Primer: ZCCHC6 (m)-PR: sc-155482-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.