

Set1B siRNA (h): sc-95750

BACKGROUND

The SET domain containing proteins, Set1A and Set1B, are both widely expressed proteins sharing 39% amino acid sequence identity. Both proteins contain SET and post-SET domains at their C-termini and an RNA recognition domain at their N-termini. They associate separately with the Set1 histone methyltransferase complex (a complex that is analogous to the *S. cerevisiae* Set1/COMPASS complex) and function as the catalytic subunit, catalyzing H3-Lys4 methyltransferase reactions. The Set1 complex also contains the non-catalytic subunits CGBP, ASH2L, WDR5, WDR82 and RBQ-3. Set1A, also known as SETD1A or KMT2F, localizes to a set of euchromatic nuclear speckles that does not overlap with the localization of Set1B (also referred to as SETD1B or KMT2G). This unique subnuclear localization suggests that Set1A and Set1B bind to a distinct set of target genes, thus implying a non-redundant function of Set1A and Set1B.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SETD1B (human) mapping to 12q24.31.

PRODUCT

Set1B 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Set1B shRNA Plasmid (h): sc-95750-SH and Set1B shRNA (h) Lentiviral Particles: sc-95750-V as alternate gene silencing 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

Set1B siRNA (h) is recommended for the inhibition of Set1B 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 Set1B gene expression knockdown using RT-PCR Primer: Set1B (h)-PR: sc-95750-PR (20 μ l, 503 bp). 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.