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METTL8 siRNA (m): sc-149393

BACKGROUND

METTL8 (methyltransferase like 8), also known as TIP, is a 291 amino acid cytoplasmic and nuclear protein that exists as multiple alternatively spliced isoforms and is thought to function as a methyltransferase. METTL8 is a member of the methyltransferase superfamily, which includes DNA methyltransferases (Dnmt), histone methyltransferases, catechol-O-methyl transferases and many others. Members of the methyltransferase superfamily have enzymatic activity that results in the transfer of a methyl group to and from DNA, RNA or amino acids. METTL8 is encoded by a gene located on human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Mettl8 (mouse) mapping to 2 C2.

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.

PRODUCT

METTL8 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 METTL8 shRNA Plasmid (m): sc-149393-SH and METTL8 shRNA (m) Lentiviral Particles: sc-149393-V as alternate gene silencing products.

For independent verification of METTL8 (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-149393A, sc-149393B and sc-149393C.

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

METTL8 siRNA (m) is recommended for the inhibition of METTL8 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 METTL8 gene expression knockdown using RT-PCR Primer: METTL8 (m)-PR: sc-149393-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.