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ST18 siRNA (m): sc-153858

BACKGROUND

ST18 (suppression of tumorigenicity 18), also known as ZNF387 (zinc finger protein 387), is a 1,047 amino acid nuclear protein that is expressed at low levels in heart, liver, kidney, skeletal muscle, pancreas, testis, ovary and prostate. Containing six C2HC-type zinc fingers and an SMC domain, ST18 is a repressor protein that binds to DNA sequences containing a specific bipartite element. ST18 is considered a transcription factor that represses basal transcription activity from target promoters and inhibits colony formation in cultured breast cancer cells. ST18 is encoded by a gene located on human chromosome 8, which consists of nearly 146 million base pairs, encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

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CHROMOSOMAL LOCATION

Genetic locus: St18 (mouse) mapping to 1 A1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

ST18 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 ST18 shRNA Plasmid (m): sc-153858-SH and ST18 shRNA (m) Lentiviral Particles: sc-153858-V as alternate gene silencing products.

For independent verification of ST18 (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-153858A, sc-153858B and sc-153858C.

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

ST18 siRNA (m) is recommended for the inhibition of ST18 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 ST18 gene expression knockdown using RT-PCR Primer: ST18 (m)-PR: sc-153858-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.