SANTA CRUZ BIOTECHNOLOGY, INC.

SB144 siRNA (h): sc-89766

BACKGROUND

SB144, also known as TMUB1 (transmembrane and ubiquitin-like domain containing 1), is a 246 amino acid multi-pass membrane protein that contains one ubiquitin-like domain. Highly expressed in the nervous system and brain, SB144 exists in a synaptosomal membrane fraction, facilitating the recycling of the AMPAR subunit GluR2 to the cell surface. Predominantly nuclear during growth arrest and actively exported from the nucleus in dividing cells, SB144 interacts with EEF1A1. SB144 may contribute to the regulation of translation during cell-cycle progression and to the regulation of cell proliferation. SB144 amino acid sequences are highly conserved (89% identity) between the human and mouse genomes. The SB144 gene is conserved in canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 7q36.1.

REFERENCES

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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: TMUB1 (human) mapping to 7q36.1.

PRODUCT

SB144 siRNA (h) is a pool of 2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SB144 shRNA Plasmid (h): sc-89766-SH and SB144 shRNA (h) Lentiviral Particles: sc-89766-V as alternate gene silencing products.

For independent verification of SB144 (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-89766A and sc-89766B.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SB144 siRNA (h) is recommended for the inhibition of SB144 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 µM in 66 µl. 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 SB144 gene expression knockdown using RT-PCR Primer: SB144 (h)-PR: sc-89766-PR (20 µl). 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.