SANTA CRUZ BIOTECHNOLOGY, INC.

M6B siRNA (h): sc-90853

BACKGROUND

M6B, also known as GPM6B (glycoprotein M6B), is a 265 amino acid multi-pass membrane protein that belongs to the Myelin proteolipid protein family. Expressed in embryonic dorsal root ganglia and within white matter tracts of the cerebellum and cerebrum, M6B plays a role in neuronal development and in overall maturation of the central nervous system. Defects in the gene encoding M6B are associated with a variety of disorders, including hypomyelinating leukodystrophies, Pelizaeus-Merzbacher syndrome and, most notably, Rett syndrome, which is a neurodevelopmental disorder with characteristics similar to those observed with autism. M6B is expressed as two alternatively spliced isoforms and is encoded by a gene which maps to human chromosome X.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GPM6B (human) mapping to Xp22.2.

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

M6B 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 M6B shRNA Plasmid (h): sc-90853-SH and M6B shRNA (h) Lentiviral Particles: sc-90853-V as alternate gene silencing products.

For independent verification of M6B (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-90853A and sc-90853B.

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

M6B siRNA (h) is recommended for the inhibition of M6B 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 M6B gene expression knockdown using RT-PCR Primer: M6B (h)-PR: sc-90853-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.