SANTA CRUZ BIOTECHNOLOGY, INC.

MON1B siRNA (h): sc-93138

BACKGROUND

MON1B (MON1 homolog B), also known as vacuolar fusion protein MON1 homolog B, HSV-1 stimulating-related protein, SRG1, SAND2 or HSRG1, is a 547 amino acid cytoplasmic protein that belongs to the MON1/SAND family. Highly expressed in brain, skin, skeletal muscle and heart, MON1B is found at low levels in lung and liver, and is induced by HSV-1 (herpes simplex virus-1) in fibroblast KMB17 cells. MON1B is encoded by a gene that maps to human chromosome 1, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MON1B (human) mapping to 16q23.1.

PROTOCOLS

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

PRODUCT

MON1B siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MON1B shRNA Plasmid (h): sc-93138-SH and MON1B shRNA (h) Lentiviral Particles: sc-93138-V as alternate gene silencing products.

For independent verification of MON1B (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-93138A, sc-93138B and sc-93138C.

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

MON1B siRNA (h) is recommended for the inhibition of MON1B 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 MON1B gene expression knockdown using RT-PCR Primer: MON1B (h)-PR: sc-93138-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.