SANTA CRUZ BIOTECHNOLOGY, INC.

GTL3 siRNA (m): sc-75212

BACKGROUND

GTL3 (gene trap locus 3), also known as EVORF, fSAP23, C16orf80 or transcription factor IIB, is a 193 amino acid protein belonging to the UPF0468 family and may be involved in transcriptional regulation. The gene encoding GTL3 maps to human chromosome 16, which is associated with a variety of genetic disorders, 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 associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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6. Hartman, W.R., Walters, D.E. and Hentosh, P. 2007. Presence of the antileukemic nucleotide analog, 2-chloro-2'-deoxyadenosine-5'-monophosphate, in a promoter sequence alters DNA binding of TATA-binding protein (TBP). Arch. Biochem. Biophys. 459: 223-232.
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CHROMOSOMAL LOCATION

Genetic locus: Gtl3 (mouse) mapping to 8 D1.

PRODUCT

GTL3 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GTL3 shRNA Plasmid (m): sc-75212-SH and GTL3 shRNA (m) Lentiviral Particles: sc-75212-V as alternate gene silencing products.

For independent verification of GTL3 (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-75212A, sc-75212B and sc-75212C.

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

GTL3 siRNA (m) is recommended for the inhibition of GTL3 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 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 GTL3 gene expression knockdown using RT-PCR Primer: GTL3 (m)-PR: sc-75212-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.

PROTOCOLS

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