SANTA CRUZ BIOTECHNOLOGY, INC.

GRINL1A siRNA (m): sc-145769

BACKGROUND

GRINL1A (glutamate receptor-like protein 1A), also known as Gcom2 or Gdown, is a 148 amino acid protein belonging to the GRINL1 family. The gene encoding GRINL1A maps to human chromosome 15q21.3, and exists as two readthrough transcript variations. Alternative splicing events additionally result in six isoforms, designated Gdown1, Gdown6, isoform 3, Gdown4, Gdown3 and Gcom1—which exists as a naturally occurring fusion protein with GRINL1A. Isoform 1 localizes to the nucleus and is expressed in adult and fetal brain, as well as heart, kidney, skeletal muscle, small intestine, lung, prostate and testis. A component of the Pol II(G) complex, isoform 1 may also be involved in the Mediator complex-dependent regulation of transcription activation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Polr2m (mouse) mapping to 9 D.

PROTOCOLS

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

PRODUCT

GRINL1A 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 GRINL1A shRNA Plasmid (m): sc-145769-SH and GRINL1A shRNA (m) Lentiviral Particles: sc-145769-V as alternate gene silencing products.

For independent verification of GRINL1A (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-145769A, sc-145769B and sc-145769C.

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

GRINL1A siRNA (m) is recommended for the inhibition of GRINL1A 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 GRINL1A gene expression knockdown using RT-PCR Primer: GRINL1A (m)-PR: sc-145769-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.