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SANTA CRUZ BIOTECHNOLOGY, INC.

NPAL2 siRNA (m): sc-150044

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Non-imprinted in Prader-Willi/Angelman syndrome (NIPA) proteins are highly conserved receptors or transporters. A family known as the NIPA-like domain containing (NPAL) proteins are closely related to the NIPA proteins, but most are uncharacterized and their functions are unknown. NPAL2 (NIPA-like domain containing 2), also known as NIPAL2, is a 368 amino acid multi-pass membrane protein belonging to the NIPA family and is encoded by a gene located on human chromosome 8. Human chromosome 8 consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Nipal2 (mouse) mapping to 15 B3.1.

PROTOCOLS

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

PRODUCT

NPAL2 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 NPAL2 shRNA Plasmid (m): sc-150044-SH and NPAL2 shRNA (m) Lentiviral Particles: sc-150044-V as alternate gene silencing products.

For independent verification of NPAL2 (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-150044A, sc-150044B and sc-150044C.

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

NPAL2 siRNA (m) is recommended for the inhibition of NPAL2 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 NPAL2 gene expression knockdown using RT-PCR Primer: NPAL2 (m)-PR: sc-150044-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.