SANTA CRUZ BIOTECHNOLOGY, INC.

PDZD9 siRNA (h): sc-93300

BACKGROUND

PDZD9 (PDZ domain containing 9) is a 264 amino acid protein that contains one PDZ (DHR) domain and participates in protein binding. Conserved in chimpanzee, canine, bovine, mouse and rat, PDZD9 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 16. Chromosome 16 encodes over 900 genes, approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders. Giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth, and the rare disorder Rubinstein-Taybi syndrome, characterized by mental retardation and predisposition to tumor growth and white blood cell neoplasias, are associated with chromosome 16. Crohn's disease, a gastrointestinal inflammatory condition, and systemic lupus erythematosis are also associated with chromosome 16.

REFERENCES

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2. Karlsson, J., et al. 2003. Novel quantitative trait loci controlling development of experimental autoimmune encephalomyelitis and proportion of lymphocyte subpopulations. J. Immunol. 170: 1019-1026.
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4. Carneiro, L.A., et al. 2007. Nod-like receptors in innate immunity and inflammatory diseases. Ann. Med. 39: 581-593.
5. Yang, Y., et al. 2007. Giant axonal neuropathy. Cell. Mol. Life Sci. 64: 601-609.
6. Gervasini, C., et al. 2007. High frequency of mosaic CREBBP deletions in Rubinstein-Taybi syndrome patients and mapping of somatic and germ-line breakpoints. Genomics 90: 567-573.
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8. Kothapalli, K.S., et al 2007. Differential cerebral cortex transcriptomes of baboon neonates consuming moderate and high docosahexaenoic acid formulas. PLoS ONE 2: e370.
9. Mitchell, K.J. and Porteous, D.J. 2010. Rethinking the genetic architecture of schizophrenia. Psychol. Med. 41: 19-32.

CHROMOSOMAL LOCATION

Genetic locus: PDZD9 (human) mapping to 16p12.2.

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

PDZD9 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 PDZD9 shRNA Plasmid (h): sc-93300-SH and PDZD9 shRNA (h) Lentiviral Particles: sc-93300-V as alternate gene silencing products.

For independent verification of PDZD9 (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-93300A, sc-93300B and sc-93300C.

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

PDZD9 siRNA (h) is recommended for the inhibition of PDZD9 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 PDZD9 gene expression knockdown using RT-PCR Primer: PDZD9 (h)-PR: sc-93300-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.