SANTA CRUZ BIOTECHNOLOGY, INC.

AVL9 siRNA (h): sc-89681

BACKGROUND

AVL9, also known as late secretory pathway protein AVL9 homolog, is a 648 amino acid protein that localizes to membrane and functions in late exocytic transport. AVL9 exhibits low expression in brain, lung, testis, liver, heart, skeletal muscle, kidney, pancreas, spleen, ovary, small intestine, colon and peripheral blood leukocytes. AVL9 exists as two alternatively spliced isoforms and is considered a complete proteome. The AVL9 gene is conserved in chimpanzee, canine, bovine, mouse, chicken, zebrafish, fruit fly, mosquito and *C. elegans,* and maps to human chromosome 7p14.3. Chromosome 7 is about 158 milllion bases long, encodes over 1000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: AVL9 (human) mapping to 7p14.3.

PROTOCOLS

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

PRODUCT

AVL9 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 AVL9 shRNA Plasmid (h): sc-89681-SH and AVL9 shRNA (h) Lentiviral Particles: sc-89681-V as alternate gene silencing products.

For independent verification of AVL9 (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-89681A, sc-89681B and sc-89681C.

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

AVL9 siRNA (h) is recommended for the inhibition of AVL9 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 AVL9 gene expression knockdown using RT-PCR Primer: AVL9 (h)-PR: sc-89681-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.