SANTA CRUZ BIOTECHNOLOGY, INC.

apoL-V siRNA (h): sc-72521

BACKGROUND

The apolipoprotein L gene family maps to a region on chromosome 22 and encodes six highly homologous proteins designated apoL-I, apoL-II, apoL-III, apoL-IV, apoL-V and apoL-VI, all of which function as components of plasma lipoproteins. ApoL-V (apolipoprotein L-V), also known as APOL5, is a 433 amino acid protein that localizes to the cytoplasm and belongs to the apolipoprotein L family. Expressed in a variety of tissues including testis, stomach, uterus and skeletal muscle, apoL-V is thought to affect the movement of lipids in the cytoplasm and may allow the binding of lipids to organelles. Like other members of the apolipoprotein L family, apoL-V is thought to be involved in the development of schizophrenia.

REFERENCES

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2. Page, N.M., et al. 2001. The human apolipoprotein L gene cluster: identification, classification, and sites of distribution. Genomics 74: 71-78.
3. Monajemi, H., et al. 2002. The apolipoprotein L gene cluster has emerged recently in evolution and is expressed in human vascular tissue. Genomics 79: 539-546.
4. Mimmack, M.L., et al. 2002. Gene expression analysis in schizophrenia: reproducible up-regulation of several members of the apolipoprotein L family located in a high-susceptibility locus for schizophrenia on chromosome 22. Proc. Natl. Acad. Sci. USA 99: 4680-4685.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607255. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Liu, Y.L., et al. 2008. RASD2, MYH9, and CACNG2 genes at chromosome 22q12 associated with the subgroup of schizophrenia with non-deficit in sustained attention and executive function. Biol. Psychiatry 64: 789-796.

CHROMOSOMAL LOCATION

Genetic locus: APOL5 (human) mapping to 22q12.3.

PRODUCT

apoL-V 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 apoL-V shRNA Plasmid (h): sc-72521-SH and apoL-V shRNA (h) Lentiviral Particles: sc-72521-V as alternate gene silencing products.

For independent verification of apoL-V (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-72521A, sc-72521B and sc-72521C.

PROTOCOLS

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

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

apoL-V siRNA (h) is recommended for the inhibition of apoL-V 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 apoL-V gene expression knockdown using RT-PCR Primer: apoL-V (h)-PR: sc-72521-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.