SANTA CRUZ BIOTECHNOLOGY, INC.

ARL6IP6 siRNA (h): sc-94709

BACKGROUND

ARL6IP6 (ADP-ribosylation-like factor 6 interacting protein 6), also known as PFAAP1 (phosphonoformate immuno-associated protein 1), is a 226 amino acid multi-pass membrane protein that belongs to the ARL6IP6 family and is encoded by a gene that maps to human chromosome 2q23.3. A 2q23.3 novel microdeletion involving seven genes, including ARL6IP6, is linked to a proposed 2q23q24 microdeletion syndrome. Additional chromosome 2q deletions, which also include ARL6IP6, are linked to autism, developmental delays and communication impairment. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. Chromosome 2 contains a probable vestigial second centromere, as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

REFERENCES

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4. Moe, M., et al. 2007. Gene expression profiles in testis of pigs with extreme high and low levels of androstenone. BMC Genomics 8: 405.
5. Benjamin, E.J., et al. 2007. Genome-wide association with select biomarker traits in the framingham heart study. BMC Med. Genet. 8: S11.
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7. Lybaek, H., et al. 2009. An 8.9 Mb 19p13 duplication associated with precocious puberty and a sporadic 3.9 Mb 2q23.3q24.1 deletion containing NR4A2 in mentally retarded members of a family with an intrachromosomal 19p-into-19q between-arm insertion. Eur. J. Hum. Genet. 17: 904-910.

CHROMOSOMAL LOCATION

Genetic locus: ARL6IP6 (human) mapping to 2q23.3.

PRODUCT

ARL6IP6 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 ARL6IP6 shRNA Plasmid (h): sc-94709-SH and ARL6IP6 shRNA (h) Lentiviral Particles: sc-94709-V as alternate gene silencing products.

For independent verification of ARL6IP6 (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-94709A, sc-94709B and sc-94709C.

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

ARL6IP6 siRNA (h) is recommended for the inhibition of ARL6IP6 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 ARL6IP6 gene expression knockdown using RT-PCR Primer: ARL6IP6 (h)-PR: sc-94709-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.

PROTOCOLS

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