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SANTA CRUZ BIOTECHNOLOGY, INC.

SLC38A11 siRNA (m): sc-153550

BACKGROUND

SLC38A11 (solute carrier family 38, member 11) also known as AVT2, is a 406 amino acid multi-pass membrane protein that belongs to the amino acid/polyamine transporter 2 family. SLC38A11 shares 14% amino acid identity with SLC38A1, which is the lowest within the SLC38 family. The SLC38A11 protein is considered a putative sodium-dependent amino acid/proton antiporter. With high levels in testis, SLC38A11 is nearly ubiquitously expressed. Existing as two alternatively spliced isoforms, the SLC38A11 gene is conserved in chimpanzee, canine, bovine mouse, rat, chicken, zebrafish, fruit fly, mosquito, *S. cerevisiae, K. lactis* and *E. gossypii,* and maps to human chromosome 2q24.3. 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.

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CHROMOSOMAL LOCATION

Genetic locus: Slc38a11 (mouse) mapping to 2 C1.3.

PROTOCOLS

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

PRODUCT

SLC38A11 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 SLC38A11 shRNA Plasmid (m): sc-153550-SH and SLC38A11 shRNA (m) Lentiviral Particles: sc-153550-V as alternate gene silencing products.

For independent verification of SLC38A11 (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-153550A, sc-153550B and sc-153550C.

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

SLC38A11 siRNA (m) is recommended for the inhibition of SLC38A11 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 SLC38A11 gene expression knockdown using RT-PCR Primer: SLC38A11 (m)-PR: sc-153550-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.