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SANTA CRUZ BIOTECHNOLOGY, INC.

SLC43A2 siRNA (m): sc-153563

BACKGROUND

SLC43A2 (solute carrier family 43, member 2), also known as LAT4 or PP7664, is a 569 amino acid multi-pass membrane protein that belongs to the SLC43A solute transporter family. Expressed in a variety of tissues with highest expression in kidney and placenta, SLC43A2 functions as a sodium- and chloride-independent transport channel protein that facilitates the transport of large neutral amino acids across membranes. Overexpression of SLC43A2 is associated with head and neck carcinomas, implicating SLC43A2 as a tumor-associated protein. SLC43A2 may be glycosylated and shares 91% sequence similarity with its mouse counterpart, suggesting a conserved function between species. The gene encoding SLC43A2 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Slc43a2 (mouse) mapping to 11 B5.

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

SLC43A2 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 SLC43A2 shRNA Plasmid (m): sc-153563-SH and SLC43A2 shRNA (m) Lentiviral Particles: sc-153563-V as alternate gene silencing products.

For independent verification of SLC43A2 (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-153563A, sc-153563B and sc-153563C.

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

SLC43A2 siRNA (m) is recommended for the inhibition of SLC43A2 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 SLC43A2 gene expression knockdown using RT-PCR Primer: SLC43A2 (m)-PR: sc-153563-PR (20 µl, 377 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.