SANTA CRUZ BIOTECHNOLOGY, INC.

ATP8B2 siRNA (m): sc-141365

BACKGROUND

P-type ATPases, which are phosphorylated in their intermediate state, drive uphill transport of ions across membranes. ATP8B2 (ATPase class I type 8B member 2), also known as probable phospholipid-transporting ATPase ID, is a 1,209 amino acid multi-pass membrane protein that belongs to the cation transport ATPase (P-type) family, type IV subfamily. ATP8B1 and ATP8B2 co-immunoprecipitate with Cdc50A and Cdc50B. ATP8B2 is widely expressed, with highest levels in amygdala, followed by cerebellum, caudate nucleus, subthalamic nucleus, ovary, whole brain and kidney. ATP8B2 exists as four alternatively spliced isoforms, with isoform 3 ubiquitously expressed. The ATP8B2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, zebrafish, fruit fly, mosquito, *C.elegans, S.pombe, K.lactis, E.gossypii, M.grisea, N.crassa* and *P.falciparum,* and maps to human chromosome 1q21.3.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Atp8b2 (mouse) mapping to 3 F1.

PRODUCT

ATP8B2 siRNA (m) is a target-specific 19-25 nt siRNA 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 ATP8B2 shRNA Plasmid (m): sc-141365-SH and ATP8B2 shRNA (m) Lentiviral Particles: sc-141365-V as alternate gene silencing 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

ATP8B2 siRNA (m) is recommended for the inhibition of ATP8B2 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 ATP8B2 gene expression knockdown using RT-PCR Primer: ATP8B2 (m)-PR: sc-141365-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.