SANTA CRUZ BIOTECHNOLOGY, INC.

ATP10A siRNA (m): sc-141332

BACKGROUND

ATPase class V type 10A (ATP10A), also known as aminophospholipid translocase VA (ATPVA) or probable phospholipid-transporting ATPase VA, is a 1,499 amino acid protein belonging to the cation transport AiTPase (P-type) family. Localized to the cell membrane, ATP10A is widely expressed in various tissues, with highest levels in kidney, lung, brain, prostate, testis, ovary and small intestine. ATP10A transports phosphatidylserine and phosphatidylethanolamine from one side of a membrane lipid bilayer to another. The gene encoding ATP10A is an imprinted gene that is maternally expressed. Defects in this gene lead to Angelman syndrome (AS), also known as happy puppet syndrome. AS is characterized by mental retardation, movement or balance disorder, characteristic abnormal behaviors and severe limitations in speech and language.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Atp10a (mouse) mapping to 7 C.

PRODUCT

ATP10A 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 ATP10A shRNA Plasmid (m): sc-141332-SH and ATP10A shRNA (m) Lentiviral Particles: sc-141332-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

ATP10A siRNA (m) is recommended for the inhibition of ATP10A 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.

GENE EXPRESSION MONITORING

ATP10A (G-9): sc-514650 is recommended as a control antibody for monitoring of ATP10A gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ATP10A gene expression knockdown using RT-PCR Primer: ATP10A (m)-PR: sc-141332-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.