SANTA CRUZ BIOTECHNOLOGY, INC.

CC2D2A siRNA (m): sc-142040

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The Power to Question

BACKGROUND

CC2D2A (coiled-coil and C2 domain containing 2A), also known as MKS6 or JBTS9, is a 1,561 amino acid protein that localizes to the cytoplasm and contains one C2 domain. Expressed at high levels in liver, lung, kidney, prostate and pancreas and present at lower levels in ovary, heart, spleen, colon, skeletal muscle and small intestine, CC2D2A is thought to participate in calcium-dependent signal transduction, possibly playing a role in signaling events throughout the cell. Human CC2D2A shares 85% sequence identity with its rodent counterparts, suggesting a conserved role between species. Defects in the gene encoding CC2D2A are the cause of Meckel syndrome type 6 (MKS6), as well as mental retardation and retinitis pigmentosa. MKS6 is an autosomal recessive disorder characterized by renal cysts and anomalies of the central nervous system, while mental retardation and retinitis pigmentosa is associated with sub-average intellect and vision loss. Multiple isoforms of CC2D2A exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Cc2d2a (mouse) mapping to 5 B3.

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

CC2D2A 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 CC2D2A shRNA Plasmid (m): sc-142040-SH and CC2D2A shRNA (m) Lentiviral Particles: sc-142040-V as alternate gene silencing products.

For independent verification of CC2D2A (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-142040A, sc-142040B and sc-142040C.

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

CC2D2A siRNA (m) is recommended for the inhibition of CC2D2A 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 CC2D2A gene expression knockdown using RT-PCR Primer: CC2D2A (m)-PR: sc-142040-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.