SANTA CRUZ BIOTECHNOLOGY, INC.

ASRGL1 siRNA (m): sc-141307

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The Power to Question

BACKGROUND

ASRGL1 (asparaginase-like protein 1), also known as CRASH, is a 308 amino acid protein belonging to the Ntn-hydrolase family. This family of proteins shares a four-layered, catalytically-active $\alpha\beta\beta\alpha$-core structure and has been shown to be evolutionarily related to penicillin V acylase. Specifically, asparaginases utilize asparagine as a substrate to produce aspartic acid and ammonia. ASRGL1 has been identified as a autoantigenic protein that is present in the mid-piece of sperm after obstruction of the male reproductive tract. Suggested to subcellularly localize to mitochondria, ASRGL1 is expressed highly in testis, but is also expressed in brain, kidney and gastrointestinal tissues. High levels of ASRGL1 have also been identified in ovarian, uterine and mammary tumors in comparison with normal tissues of the same origin. There are two named isoforms of ASRGL1 which are produced by alternative splicing.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Asrgl1 (mouse) mapping to 19 A.

PROTOCOLS

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

PRODUCT

ASRGL1 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 ASRGL1 shRNA Plasmid (m): sc-141307-SH and ASRGL1 shRNA (m) Lentiviral Particles: sc-141307-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

ASRGL1 siRNA (m) is recommended for the inhibition of ASRGL1 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 ASRGL1 gene expression knockdown using RT-PCR Primer: ASRGL1 (m)-PR: sc-141307-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.