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SART-3 siRNA (m): sc-153224

BACKGROUND

SART-3 (squamous cell carcinoma antigen recognized by T cells 3), also known as P100, p110, DSAP1 or TIP110, is a 963 amino acid protein that localizes to nuclear speckles, as well as to the cytoplasm, and contains two RRM domains and eight HAT repeats. Expressed ubiquitously, SART-3 functions as a component of the 7SK snRNP complex and is involved in regulating the transactivation of TAT, possibly playing a role in the pathogenesis of squamous cell carcinomas (SCC), adenocarcinomas, melanomas and leukemias. SART-3 exists as multiple alternatively spliced isoforms which are subject to DNA damage-dependent phosphorylation, probably by Atm or ATR. Defects in the gene encoding SART-3 are the cause of disseminated superficial actinic porokeratosis type 1 (DSAP1), an autosomal dominant disorder that is characterized by the formation of keratotic lesions surrounded by a slightly raised keratotic border.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SART3 (mouse) mapping to 5 F.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

SART-3 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SART-3 shRNA Plasmid (m): sc-153224-SH and SART-3 shRNA (m) Lentiviral Particles: sc-153224-V as alternate gene silencing products.

For independent verification of SART-3 (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-153224A, sc-153224B and sc-153224C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SART-3 siRNA (m) is recommended for the inhibition of SART-3 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 μ M in 66 μ l. 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 SART-3 gene expression knockdown using RT-PCR Primer: SART-3 (m)-PR: sc-153224-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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