SANTA CRUZ BIOTECHNOLOGY, INC.

HRASLS3 siRNA (m): sc-146077

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The Power to Question

BACKGROUND

Phospholipase A_2s (PLA_2s) constitute a family of esterases that hydrolyze the sn-2-acyl ester bond in glycerophospholipid molecules. These enzymes are generally calcium-dependent and have been found both intra- and extracellularly. By hydrolyzing the sn-2 bond in glycerophospholipids, PLA_2s release fatty acids. One such fatty acid, arachidonic acid, generates substrates for the initiation of the arachidonic acid cascade that produces various eicosanoids, many of which are potent mediators of inflammation. HRASLS3 (Ha-RAS like suppressor 3), also known as PLA2G16 (phospholipase A_2, group XVI), AdPLA, HRSL3 or HREV107, is a 162 amino acid single-pass membrane protein that belongs to the H-rev107 family. Widely expressed, HRASLS3 exhibits PLA1/2 activity by catalyzing the calcium-independent hydrolysis of acyl groups in various phosphotidylcholines (PCs) and phosphatidylethanolamine (PE). HRASLS3 is induced by IFN-γ and IRF-1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pla2g16 (mouse) mapping to 19 A.

PRODUCT

HRASLS3 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 HRASLS3 shRNA Plasmid (m): sc-146077-SH and HRASLS3 shRNA (m) Lentiviral Particles: sc-146077-V as alternate gene silencing products.

For independent verification of HRASLS3 (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-146077A, sc-146077B and sc-146077C.

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

HRASLS3 siRNA (m) is recommended for the inhibition of HRASLS3 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 HRASLS3 gene expression knockdown using RT-PCR Primer: HRASLS3 (m)-PR: sc-146077-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.