SANTA CRUZ BIOTECHNOLOGY, INC.

ASPG siRNA (h): sc-92274

BACKGROUND

ASPG (asparaginase homolog), also known as 60 kDa lysophospholipase, is a 567 amino acid phosphoprotein that contains five ANK repeats and belongs to the asparaginase 1 family. A monomer, ASPG is conserved in chimpanzee, bovine, mouse and rat. Highly expressed in liver and kidney, but minimally in lung and heart, ASPG exists as two alternatively spliced isoforms. ASPG participates in asparaginase, transacylase, platelet-activating factor acetylhydrolase, lysophospholipase and 1-alkyl-2-acetylglycerophosphocholine esterase activities. ASPG is encoded by a gene that maps to human chromosome 14q32.32. Chromosome 14 contains approximately 700 genes and 106 million base pairs, and makes up 3.5% of human cellular DNA. Chromosome 14 is linked to Alzheimer's disease, α1-antitrypsin deficiency and various B cell malignancies.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ASPG (human) mapping to 14q32.33.

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

ASPG siRNA (h) 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 ASPG shRNA Plasmid (h): sc-92274-SH and ASPG shRNA (h) Lentiviral Particles: sc-92274-V as alternate gene silencing products.

For independent verification of ASPG (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-92274A, sc-92274B and sc-92274C.

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

ASPG siRNA (h) is recommended for the inhibition of ASPG expression in human 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 ASPG gene expression knockdown using RT-PCR Primer: ASPG (h)-PR: sc-92274-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.