SANTA CRUZ BIOTECHNOLOGY, INC.

GASP-1 siRNA (h): sc-90993

BACKGROUND

GASP-1 (G protein-coupled receptor-associated sorting protein-1), also known as GPRASP1, is a 1,395 amino acid member of the GPRASP protein family. In lysosomes, GASP-1 targets receptors for degredation and may also regulate lysosomal sorting and functional downregulation of G protein-coupled receptors. Localized to the cytoplasm, GASP-1 interacts with the cytoplasmic tails of G protein-coupled receptors, such as D2DR, D4DR, β_2-AR and DOR-1. GASP-1 has also been found to interact with Per1, a period protein that exhibits circadian rhythyms in the superchiasmatic nucleus (SCN) found in the brain. GASP-1 is expressed mainly in the brain, with lower expression in spinal chord, medulla and substantia nigra.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GPRASP1 (human) mapping to Xq22.1.

PRODUCT

GASP-1 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 GASP-1 shRNA Plasmid (h): sc-90993-SH and GASP-1 shRNA (h) Lentiviral Particles: sc-90993-V as alternate gene silencing products.

For independent verification of GASP-1 (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-90993A, sc-90993B and sc-90993C.

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

GASP-1 siRNA (h) is recommended for the inhibition of GASP-1 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 GASP-1 gene expression knockdown using RT-PCR Primer: GASP-1 (h)-PR: sc-90993-PR (20 µl, 583 bp). 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.

PROTOCOLS

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