SANTA CRUZ BIOTECHNOLOGY, INC.

GKAP1 siRNA (h): sc-92584

BACKGROUND

GKAP1 (G kinase-anchoring protein 1), also known as GKAP42 or cGMP-dependent protein kinase-anchoring protein of 42 kDa, is a 366 amino acid protein belonging to the GKAP1 family. Localized to golgi apparatus, GKAP1 interacts with cGKI. GKAP1 exists as two isoforms produced by alternative splicing events, and is encoded by a gene that maps to human chromosome 9q21.32. Chromosome 9 houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GKAP1 (human) mapping to 9q21.32.

RESEARCH USE

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

PRODUCT

GKAP1 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 GKAP1 shRNA Plasmid (h): sc-92584-SH and GKAP1 shRNA (h) Lentiviral Particles: sc-92584-V as alternate gene silencing products.

For independent verification of GKAP1 (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-92584A, sc-92584B and sc-92584C.

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

GKAP1 siRNA (h) is recommended for the inhibition of GKAP1 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 GKAP1 gene expression knockdown using RT-PCR Primer: GKAP1 (h)-PR: sc-92584-PR (20 µl). 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.