

DGK- κ siRNA (m): sc-155881

BACKGROUND

Diacylglycerol kinase plays an important role in signal transduction through regulating the balance between two signaling lipids, diacylglycerol (DAG) and phosphatidic acid (PA). DGK- κ (diacylglycerol kinase κ), also known as DGKK, 142 kDa diacylglycerol kinase or diglyceride kinase κ , is a 1,271 amino acid protein belonging to the eukaryotic diacylglycerol kinase family. DGK- κ contains one DAGKc domain, one PH domain and two phorbol-ester/DAG-type zinc fingers. DGK- κ generates PA by phosphorylating DAG and is inhibited in response to hydrogen peroxide. A peripheral membrane protein, DGK- κ does not form homooligomers and is expressed in testis, with lower levels in placenta.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Dgkk (mouse) mapping to X A1.1.

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

DGK- κ 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 DGK- κ shRNA Plasmid (m): sc-155881-SH and DGK- κ shRNA (m) Lentiviral Particles: sc-155881-V as alternate gene silencing products.

For independent verification of DGK- κ (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-155881A, sc-155881B and sc-155881C.

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

DGK- κ siRNA (m) is recommended for the inhibition of DGK- κ 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 DGK- κ gene expression knockdown using RT-PCR Primer: DGK- κ (m)-PR: sc-155881-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.