



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

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

1. Itani, S.I., Ruderman, N.B., Schmieder, F. and Boden, G. 2002. Lipid-induced Insulin resistance in human muscle is associated with changes in diacylglycerol, protein kinase C, and I κ B- α . *Diabetes* 51: 2005-2011.
2. Imai, S., Kai, M., Yasuda, S., Kanoh, H. and Sakane, F. 2005. Identification and characterization of a novel human type II diacylglycerol kinase, DGK- κ . *J. Biol. Chem.* 280: 39870-39881.
3. Nair, S., Xu, C., Shen, G., Hebbar, V., Gopalakrishnan, A., Hu, R., Jain, M.R., Lin, W., Keum, Y.S., Liew, C., Chan, J.Y. and Kong, A.N. 2006. Pharmacogenomics of phenolic antioxidant butylated hydroxyanisole (BHA) in the small intestine and liver of Nrf2 knockout and C57BL/6J mice. *Pharm. Res.* 23: 2621-2637.
4. Merida, I., Avila-Flores, A. and Merino, E. 2008. Diacylglycerol kinases: at the hub of cell signalling. *Biochem. J.* 409: 1-18.
5. Hozumi, Y. 2009. Morphological study of the diacylglycerol kinase family. *Kaibogaku Zasshi* 84: 121-122.
6. Riese, M.J., Grewal, J., Das, J., Zou, T., Patil, V., Chakraborty, A.K. and Koretzky, G.A. 2011. Decreased diacylglycerol metabolism enhances ERK activation and augments CD8⁺ T cell functional responses. *J. Biol. Chem.* 286: 5254-5265.
7. van der Zanden, L.F., van Rooij, I.A., Feitz, W.F., Knight, J., Donders, A.R., Renkema, K.Y., Bongers, E.M., Vermeulen, S.H., Kiemeney, L.A., Veltman, J.A., Arias-Vásquez, A., Zhang, X., Markljung, E., Qiao, L., et al. 2011. Common variants in DGKK are strongly associated with risk of hypospadias. *Nat. Genet.* 43: 48-50.

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.