

DGK- θ (24): sc-135882

BACKGROUND

Diacylglycerol kinases (DGKs) phosphorylate diacylglycerol (DAG) to produce phosphatidic acid. DAG and phosphatidic acid are lipids that act as second messengers in signaling cascades. DGK- α influences cell activation and secretion of lethal exosomes, which in turn control cell death. DGK- β is abundant in restricted brain regions such as the caudate putamen and olfactory tubercle. DGK- γ encodes full-length and truncated transcripts that are present in a range of human tissues, with greatest expression observed in retina. DGK- δ is most abundant in skeletal muscle. DGK- ϵ shows specificity for arachidonyl-containing diacylglycerol and is expressed predominantly in testis. DGK- ζ is most abundant in brain and muscle. DGK- η is closely related to DGK- δ . DGK- θ is most abundant in the cerebellum and hippocampus. DGK- ι is present in brain and retina as a predominant transcript of more than 12 kb, including a long 3' untranslated region, with additional low abundance transcripts of 9.5 and 7.5 kb. DGKs have structural motifs that play regulatory roles, and these motifs form the basis for dividing the DGKs into five subtypes.

REFERENCES

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3. Masai, I., et al. 1993. *Drosophila* retinal degeneration A gene encodes an eye-specific diacylglycerol kinase with cysteine-rich zinc-finger motifs and ankyrin repeats. *Proc. Natl. Acad. Sci. USA* 90: 11157-11161.
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CHROMOSOMAL LOCATION

Genetic locus: DGKQ (human) mapping to 4p16.3; Dgkq (mouse) mapping to 5 F.

SOURCE

DGK- θ (24) is a mouse monoclonal antibody raised against amino acids 677-883 of DGK- θ of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

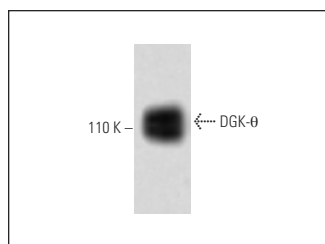
DGK- θ (24) is recommended for detection of DGK- θ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for DGK- θ siRNA (h): sc-45681, DGK- θ siRNA (m): sc-45682, DGK- θ shRNA Plasmid (h): sc-45681-SH, DGK- θ shRNA Plasmid (m): sc-45682-SH, DGK- θ shRNA (h) Lentiviral Particles: sc-45681-V and DGK- θ shRNA (m) Lentiviral Particles: sc-45682-V.

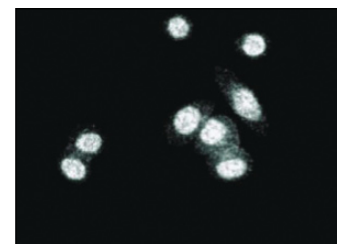
Molecular Weight of DGK- θ : 110 kDa.

Positive Controls: rat brain extract: sc-2392.

DATA



DGK- θ (24): sc-135882. Western blot analysis of DGK- θ expression in rat brain tissue extract.



DGK- θ (24): sc-135882. Immunofluorescence staining of SK-BR-3 cells showing nuclear staining.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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