

Ceramide Kinase (H-237): sc-98700

BACKGROUND

Ceramide Kinase, also known as CERK, LK4 (lipid kinase 4) or acylsphingosine kinase, is a 537 amino acid peripheral membrane protein that localizes to both the membrane and the cytoplasm and contains one DAGHc domain. Highly expressed in brain, liver, kidney, heart and skeletal muscle, with lower expression in spleen, lung, thymus and small intestine, Ceramide Kinase uses calcium and magnesium as cofactors to catalyze the ATP-dependent conversion of ceramide to ceramide 1-phosphate (C1P), a sphingolipid metabolite. Ceramide Kinase functions at an optimal pH of 6-7.5 and, via its catalytic activity, plays an important role in a variety of cellular processes, including apoptosis, phagocytosis and cellular proliferation.

REFERENCES

1. Sugiura, M., et al. 2002. Ceramide Kinase, a novel lipid kinase. Molecular cloning and functional characterization. *J. Biol. Chem.* 277: 23294-23300.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610307. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: CERK (human) mapping to 22q13.31; CerK (mouse) mapping to 15 E2.

SOURCE

Ceramide Kinase (H-237) is a rabbit polyclonal antibody raised against amino acids 238-474 mapping near the C-terminus of Ceramide Kinase of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ceramide Kinase (H-237) is recommended for detection of Ceramide Kinase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ceramide Kinase (H-237) is also recommended for detection of Ceramide Kinase in additional species, including equine and canine.

Suitable for use as control antibody for Ceramide Kinase siRNA (h): sc-72868, Ceramide Kinase siRNA (m): sc-72869, Ceramide Kinase shRNA Plasmid (h): sc-72868-SH, Ceramide Kinase shRNA Plasmid (m): sc-72869-SH, Ceramide Kinase shRNA (h) Lentiviral Particles: sc-72868-V and Ceramide Kinase shRNA (m) Lentiviral Particles: sc-72869-V.

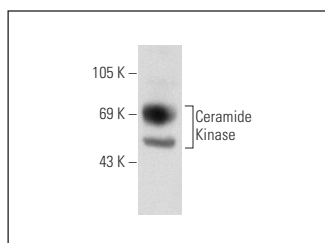
Molecular Weight of Ceramide Kinase: 60 kDa.

Positive Controls: A2058 whole cell lysate: sc-364178 or mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ceramide Kinase (H-237): sc-98700. Western blot analysis of Ceramide Kinase expression in mouse heart tissue extract.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Ceramide Kinase (G-3): sc-376730**, our highly recommended monoclonal alternative to Ceramide Kinase (H-237).