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Zuschläge

- Mindermengenzuschlag
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Ceramide Kinase. Rabbit Polyclonal Antibody

Background

Sphingolipids, in addition to being structural components of membranes, regulate cell-cell and cell-substrate interactions, proliferation, and differentiation. Members of this diverse group of lipids have emerged as a novel class of signaling molecules that also regulate phagocytosis. The mechanisms by which sphingolipids exert these effects remain incompletely defined. More than a decade ago, it was found that ceramide can be phosphorylated to ceramide 1-phosphate (C1P). Ceramide kinase (CERK) and its phosphorylated product ceramide 1-phosphate (C1P) are central players in inflammation and cancer. The product of CERK activity, ceramide 1-phosphate (C1P), has been reported to have mitogenic effects. C1P is a direct activator of cytosolic phospholipase A2 and is involved in arachidonic acid release. CERK is a mediator of Ca2+-dependent degranulation in mast cells. In both arachidonic acid release and mast cell degranulation, the intracellular elevation of Ca2+ is a central event that acts as a regulatory mechanism of CERK activity. C1P is found in brain synaptic vesicles, and plays a role in regulating the secretion of neurotransmitters. CERK activity exists in HL-60 cells where the C1P is derived from ceramide released from sphingomyelin. The expressed kinase has specific ceramide phosphorylating activity. CERKs exist in a variety of cellular organisms, including plants, nematodes, insects, and vertebrates.

Ordering Information

Catalog Number
X1715P

Size
100 µg

Form
Unconjugated

Host/Clone
Rabbit

Formulation
Provided as solution in phosphate buffered saline with 0.08% sodium azide

Concentration
See vial for concentration

Isotype
N/A

Applications
Western Blot, ELISA

Species Reactivity
Human

Accession Number
Q8TCT0, Human

Immunogen

Synthetic peptide derived from human ceramide kinase protein

Positive Control/Tissue Expression

High level expression in heart, brain, skeletal muscle, kidney and liver

Comments

Antibody can be used for Western blotting (1-10µg/ml). Can also be used for ELISA. Optimal concentration should be evaluated by serial dilutions.

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PURIFICATION

Ammonium Sulfate Precipitation

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20ºC. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

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4. Chalfant CE, Spiegel S. 'Sphingosine 1-phosphate and ceramide 1-phosphate: expanding roles in cell signaling.' J Cell Sci. 2005 Oct 15;118(Pt 20):4605-12. Review.

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