Ceramide kinase (CERK) (IN). Rabbit Antigen Immunoaffinity Purifed Polyclonal Human

CERK, DA59H18.2, DA59H18.3, DKFZP434E0211, EC 2.7.1.138, FLJ21430, FLJ23239, HCERK, KIAA1646, LK4, MGC131878

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.

Immunogen

Synthetic peptide derived from the internal domain of human CERK

Ordering Information

Catalog Number
X2160P

Size
10 Miniblots

Form
Affinity Purified

Host/Clone
Rabbit

Formulation
Phosphate buffered saline containing 0.1% sodium azide

Concentration
1 mg/ml

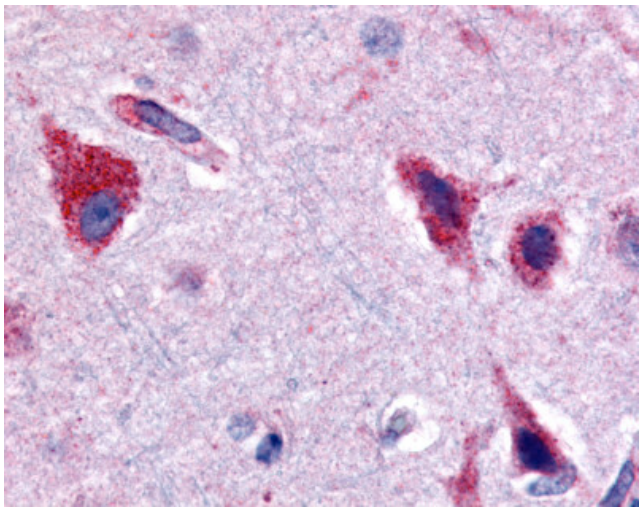
Isotype
IgG

Applications
Immunohistochemistry

Species Reactivity

Human

Legend:
CERK staining of formallin fixed paraffin embedded human brain (cortex) tissue at a dilution of 20 μg/ml. Antigen retrieval using a citrate buffer and steam/heat was utilized.



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POSITIVE CONTROL/TISSUE EXPRESSION

COMMENTS

Antibody can be used for immunohistochemistry (20 μg/ml). Optimal concentration should be evaluated by serial dilutions.

SHIP CONDITIONS

Ship on gel ice, store at -70ºC immediately upon arrival

STORAGE CUSTOMER

Product should be stored at -70ºC. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

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