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CERK Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7088b

Specification

CERK Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q8TCT0
Other Accession	NP_073603
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**487-516**

CERK Antibody (C-term) - Additional Information

Gene ID 64781

Other Names
Ceramide kinase, hCERK, Acylsphingosine kinase, Lipid kinase 4, LK4, CERK, KIAA1646

Target/Specificity
This CERK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 487-516 amino acids from the C-terminal region of human CERK.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CERK Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CERK Antibody (C-term) - Protein Information

Name CERK

Synonyms KIAA1646

Function Catalyzes specifically the phosphorylation of ceramide to form ceramide 1-phosphate (PubMed:11956206, PubMed:16269826, PubMed:19168031). Acts efficiently on natural and analog ceramides (C6, C8, C16 ceramides, and C8-dihydroceramide), to a lesser extent on C2- ceramide and C6-dihydroceramide, but not on other lipids, such as various sphingosines (PubMed:11956206, PubMed:16269826, PubMed:19168031). Shows a greater preference for D-erythro isomer of ceramides (PubMed:16269826). Binds phosphoinositides (PubMed:19168031).

Cellular Location
Cytoplasm. Cell membrane; Peripheral membrane protein

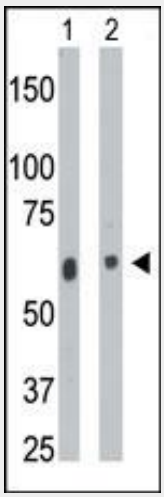
Tissue Location
High level expression in heart, brain, skeletal muscle, kidney and liver; moderate in peripheral blood leukocytes and thymus; very low in spleen, small intestine, placenta and lung

CERK Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CERK Antibody (C-term) - Images



The anti-CERK Pab (Cat. #AP7088b) is used in Western blot to detect CERK in mouse heart tissue lysate (Lane 1) and A2058 cell lysate (Lane 2).

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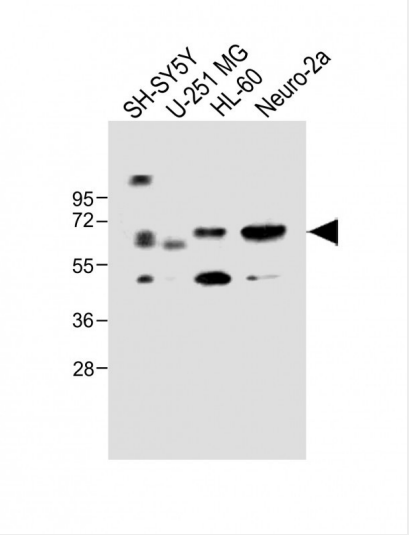

All lanes : Anti-CERK Antibody (C-term) at 1:1000 dilution Lane 1: SH-SY5Y whole cell lysate Lane 2: U-251 MG whole cell lysate Lane 3: HL-60 whole cell lysate Lane 4: Neuro-2a whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 60 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

CERK Antibody (C-term) - Background

Ceramide kinases convert the sphingolipid metabolite ceramide into ceramide-1-phosphate, both key mediators of cellular apoptosis and survival. Ceramide metabolism plays an essential role in the viability of neuronal cells, the membranes of which are particularly rich in sphingolipids. CERK catalyzes specifically the phosphorylation of ceramide to form ceramide 1-phosphate. This enzyme acts efficiently on natural and analog ceramides (C6, C8, C16 ceramides, and C8 dihydroceramide), and to a lesser extent on C2-ceramide and C6-dihydroceramide, but not on other lipids, such as various sphingosines. High level expression is noted in heart, brain, skeletal muscle, kidney and liver; moderate expression in peripheral blood leukocytes and thymus; and low expression in spleen, small intestine, placenta and lung.

CERK Antibody (C-term) - References

J. Biol. Chem. 279 (17), 17570-17577 (2004)
J. Biol. Chem. 278 (40), 38206-38213 (2003)
J. Biol. Chem. 277 (26), 23294-23300 (2002)

CERK Antibody (C-term) - Citations

- Regulation of adipogenesis by ceramide 1-phosphate.
- Implication of Ceramide Kinase in Adipogenesis.
- ATRA inhibits ceramide kinase transcription in a human neuroblastoma cell line, SH-SY5Y cells: the role of COUP-TFI.
- Cardiovascular inflammation and lesion cell apoptosis: a novel connection via the interferon-inducible immunoproteasome.
- Ceramide kinase promotes Ca2+ signaling near IgG-opsonized targets and enhances phagolysosomal fusion in COS-1 cells.