

Product datasheet for **AP05212PU-N**

CERK Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	ELISA. Western Blot: 1 - 10 µg/ml. Positive Control: High level expression in heart, brain, skeletal muscle, kidney and liver.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide derived from human ceramide kinase protein
Specificity:	This antibody reacts to Ceramide Kinase.
Formulation:	Phosphate buffered saline with 0.08% sodium azide State: Purified State: Liquid purified Ig
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	The antibody can be shipped at ambient temperature. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	ceramide kinase
Database Link:	Entrez Gene 64781 Human Q8TCT0



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Background:	<p>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.</p>
Synonyms:	hCERK, Acylsphingosine kinase, Lipid kinase 4, KIAA1646, LK4
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Sphingolipid metabolism