Ceramide Kinase (CERK) ELISA Kit for Human

PRODUCT OVERVIEW

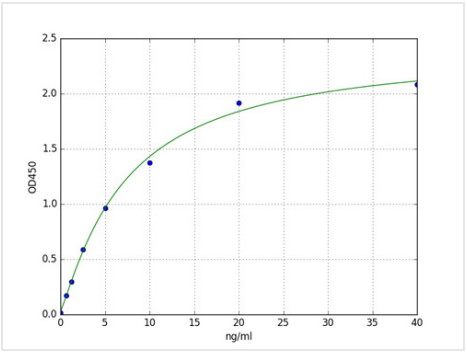
Product Name	Ceramide kinase (CERK), ELISA Kit
Full Product Name	Human Ceramide kinase ELISA Kit
Product Gene Name	CERK elisa kit
Product Synonym Names	CERK (Ceramide kinase)/hCERK/LK4/Acylsphingosine kinase/Lipid kinase 4
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.625-40ng/ml
Sensitivity	0.375ng/ml
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Molecular Weight	37,781 Da
OMIM	610307
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CERK elisa kit	Principle of the Assay||This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-Human CERKantibody was pre-coated onto 96-well plates. And the biotin conjugated anti-Human CERK antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. HRPStreptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human CERK amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration ofHuman CERKcan be calculated.
Other Notes	Small volumes of CERK elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CERK purchase	MBS760278 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Ceramide kinase (CERK) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CERK. The ELISA analytical biochemical technique of the MBS760278 kit is based on CERK antibody-CERK antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CERK antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CERK. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

Typical Data & Standard Curve

Results of a typical standard run of a Human CERK ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.625	1.25	2.5	5	10	20	40
Y	OD450	0.050	0.100	0.133	0.244	0.441	0.829	1.481	2.473

Typical Testing Data of CERK elisa kit



Typical Standard Curve of CERK elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CERK. It may not necessarily be applicable to this product.

NCBI GI #	20336726
NCBI GeneID	64781
NCBI Accession #	NP_073603.2
UniProt Secondary Accession #	Q6NX59; Q9BYB3; Q9UGE5; A0JNT4; A8K611
UniProt Related Accession #	Q8TCT0
GenBank Nucleotide #	NM_022766.5
NCBI Official Full Name	ceramide kinase
NCBI Official Synonym Full Names	ceramide kinase
NCBI Official Symbol	CERK
NCBI Official Synonym Symbols	LK4; hCERK; dA59H18.2; dA59H18.3
UniProt Protein Name	Ceramide kinase
UniProt Synonym Protein Names	Acylsphingosine kinase; Lipid kinase 4; LK4
Protein Family	Ceramide kinase
UniProt Gene Name	CERK
UniProt Synonym Gene Names	KIAA1646; hCERK; LK4
UniProt Entry Name	CERK1_HUMAN
NCBI Protein Information	ceramide kinase
NCBI Summary for CERK	CERK converts ceramide to ceramide 1-phosphate (C1P), a sphingolipid metabolite. Both CERK and C1P have been implicated in various cellular processes, including proliferation, apoptosis, phagocytosis, and inflammation (Kim et al., 2006 [PubMed 16488390]).[supplied by OMIM, Mar 2008]

UniProt Comments for CERK	CERK: Catalyzes specifically the phosphorylation of ceramide to form ceramide 1-phosphate. 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. Binds phosphoinositides. Protein type: Kinase, lipid; Lipid Metabolism - sphingolipid; EC 2.7.1.138 Chromosomal Location of Human Ortholog: 22q13.31 Cellular Component: integral to membrane; mitochondrion; plasma membrane Molecular Function: ATP binding; ceramide kinase activity; magnesium ion binding; protein binding Biological Process: ceramide metabolic process; glycosphingolipid metabolic process; lipid phosphorylation; sphingolipid metabolic process
Research Articles on CERK	**1.** our findings identify a functional role for Cerk in breast cancer recurrence and suggest the clinical utility of agents targeted against this prosurvival pathway.
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