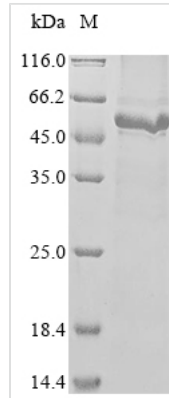




Recombinant Mouse Extracellular tyrosine-protein kinase PKDCC (Pkdcc)

Product Code	CSB-BP735887MO
Abbreviation	Recombinant Mouse Pkdcc protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q5RJI4
Product Type	Recombinant Proteins
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	PRPGQSPGSSAAPGPGRRGGRGELARQIRERYEEVQRYSRGGPGPGAGRP ERRRLMDLAPGGPGLQRP RPVRSPPDGAPGWPPAPGPGSPGPGPRLGC AALRNVSQAQYVGSYGTKAVYRVRLPGGAVALKAVDFSGHDLGSCVREFGA RRGCYRLAAHKLLKEMVLLERLRHPNVLQLYGYCYQDSEGIPDTLTTITELGAP VEMIQLLQTSWEDRFRICLSLGRLLHHLAHSPLGSVTLTDFRPRQFVLVNGELK VTDLDDARVEETPCTSSADCTLEFPARNFSLPCSAQGWCEGMNEKRNLYNAY RFFFTYLLPHSAPPSLRPLLDIVNATGELAWGVDETLAQLETALHLFRSGQYL QNSTSSRAEYQRIQSAITQEDYRCWPSYHHGGCLLSVFNLAEIDVCESHAQ CRAFTVTNQTWTGRKLVFFKTGWNQVVPDAGKTTYVKAPG
Research Area	Cell Biology
Source	Baculovirus
Target Names	Pkdcc
Protein Names	Recommended name: Protein kinase domain-containing protein, cytoplasmic EC= 2.7.-.- Alternative name(s): Protein kinase-like protein SgK493 Sugen kinase 493 Vertebrate lonesome kinase
Expression Region	33-492aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	54.4
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant Mouse Extracellular tyrosine-protein kinase PKDCC (Pkdcc) is expressed in a baculovirus system, spanning the full length of the mature protein from amino acids 33 to 492. The protein includes an N-terminal 10xHis-tag and a C-terminal Myc-tag, which makes purification and detection more straightforward. SDS-PAGE analysis shows purity exceeding 85%, suggesting it's well-suited for various research applications.

Extracellular tyrosine-protein kinase PKDCC appears to play a crucial role in cellular signaling pathways. The protein is known for its kinase activity and participates in phosphorylation processes that regulate various cellular functions. Studying this protein may be important for understanding signal transduction mechanisms and its potential involvement in cellular development and differentiation processes. Researchers use this protein to explore its functions and interactions within these biological pathways.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Protein-Protein Interaction Studies Using Pull-Down Assays

The dual-tagged recombinant PKDCC protein with N-terminal His-tag and C-terminal Myc-tag provides useful tools for investigating protein-protein interactions. Pull-down experiments can take advantage of the His-tag by immobilizing the protein on nickel-affinity resins to identify potential binding partners from mouse cell lysates or tissue extracts. Meanwhile, the Myc-tag allows for straightforward detection and confirmation of protein capture through Western blotting or immunofluorescence techniques. This approach may help clarify the molecular networks and signaling pathways involving PKDCC in cellular processes.

2. Antibody Development and Validation

This recombinant mouse PKDCC protein serves as a suitable immunogen and



positive control for developing specific antibodies against PKDCC. The high purity (>85%) and proper folding from the baculovirus expression system likely ensure presentation of native epitopes for antibody generation. Both tags make purification monitoring easier and allow researchers to distinguish between antibodies recognizing the native protein versus the tags. Antibodies generated this way can be validated using this recombinant protein in various immunoassays including ELISA, Western blotting, and immunoprecipitation experiments.

3. Biochemical Characterization and Enzyme Kinetics Analysis

The recombinant PKDCC protein can be used for comprehensive biochemical characterization studies including protein stability, optimal buffer conditions, and temperature sensitivity. Researchers can investigate the protein's structural properties through techniques such as circular dichroism spectroscopy, dynamic light scattering, and analytical ultracentrifugation. The purified protein also enables detailed kinetic studies to understand substrate specificity and catalytic parameters, providing fundamental insights into PKDCC's enzymatic properties and regulatory mechanisms.

4. Cell-Based Functional Assays and Overexpression Studies

This recombinant protein can be used in cell culture experiments to study PKDCC function through protein transduction or microinjection techniques. The Myc-tag makes it possible to track exogenous protein localization and expression levels in transfected cells through immunofluorescence microscopy. Researchers can investigate the effects of PKDCC overexpression on cellular phenotypes, signaling pathway activation, and gene expression profiles. The protein can also serve as a positive control in cell-based assays designed to study PKDCC-mediated cellular responses.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.