

Datasheet for ABIN3137141

**Casein Kinase 1 delta Protein (AA 1-415) (His tag)****1** Image[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	Casein Kinase 1 delta (CSNK1D)
Protein Characteristics:	AA 1-415
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Casein Kinase 1 delta protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

## Product Details

Sequence:	MELRVGNRYR LGRKIGSGSF GDIYLGTDIA AGE EVAIKLE CVKTKHPQLH IESKIYKMMQ GGVGIP TIRW CGAEGDYNVM VMELLGPSLE DLFNFC SRKF SLKTVLLLAD QMISRIEYIH SKNFIHRDVK PDNFLMGLGK KGNLVYIIDF GLAKKYRDAR THQHIPPYREN KNLTGTARYA SINTHLGIEQ SRRDDLES LG YVLMYFNLGS LPWQGLKAAT KRQKYERISE KKMSTPIEVL CKGYPSEFAT YLNFCSR LRF DDKPDYSYLR QLFRNLFHRQ GFSYDYVFDW NMLKFGASRA ADDAERERRD REERLRHSRN PATRGLPSTA SGRLRG TQEV APPTPLTPTS HTANTSPRPV SGMERERKVS MRLHRGAPVN VSSSDLTGRQ DTSRMSTS QI PGRVASSGLQ SVVHR <b>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</b>
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Characteristics:	<ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Mouse Csnk1d Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.</li></ul>
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## Product Details

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- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells:  1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.  2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

## Target Details

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Target:	Casein Kinase 1 delta (CSNK1D)
Alternative Name:	Csnk1d ( <a href="#">CSNK1D Products</a> )

## Target Details

Background:	<p>Essential serine/threonine-protein kinase that regulates diverse cellular growth and survival processes including Wnt signaling, DNA repair and circadian rhythms. It can phosphorylate a large number of proteins. Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. Phosphorylates connexin-43/GJA1, MAP1A, SNAPIN, MAPT/TAU, TOP2A, DCK, HIF1A, EIF6, p53/TP53, DVL2, DVL3, ESR1, AIB1/NCOA3, DNMT1, PKD2, YAP1, PER1 and PER2. Central component of the circadian clock. In balance with PP1, determines the circadian period length through the regulation of the speed and rhythmicity of PER1 and PER2 phosphohorylation. Controls PER1 and PER2 nuclear transport and degradation. YAP1 phosphorylation promotes its SCF(beta-TRCP) E3 ubiquitin ligase-mediated ubiquitination and subsequent degradation. DNMT1 phosphorylation reduces its DNA-binding activity. Phosphorylation of ESR1 and AIB1/NCOA3 stimulates their activity and coactivation. Phosphorylation of DVL2 and DVL3 regulates WNT3A signaling pathway that controls neurite outgrowth. EIF6 phosphorylation promotes its nuclear export. Triggers down-regulation of dopamine receptors in the forebrain. Activates DCK in vitro by phosphorylation. TOP2A phosphorylation favors DNA cleavable complex formation. May regulate the formation of the mitotic spindle apparatus in extravillous trophoblast. Modulates connexin-43/GJA1 gap junction assembly by phosphorylation. Probably involved in lymphocyte physiology. Regulates fast synaptic transmission mediated by glutamate. {ECO:0000269 PubMed:10848614, ECO:0000269 PubMed:16014721, ECO:0000269 PubMed:17101137, ECO:0000269 PubMed:19414593, ECO:0000269 PubMed:19948962, ECO:0000269 PubMed:20145109, ECO:0000269 PubMed:20192920, ECO:0000269 PubMed:20421981, ECO:0000269 PubMed:21930935}.</p>
Molecular Weight:	48.3 kDa Including tag.
UniProt:	<a href="#">Q9DC28</a>
Pathways:	<a href="#">Hedgehog Signaling, M Phase</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

## Application Details

Restrictions: For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process