

## Datasheet for ABIN7565015

## Casein Kinase 1 delta Protein (AA 1-415) (His tag)



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Quantity:	1 mg
Target:	Casein Kinase 1 delta (CSNK1D)
Protein Characteristics:	AA 1-415
Origin:	Mouse
Source:	HEK-293 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)

## **Product Details**

Purpose:	Custom-made recombinat Csnk1d Protein expressed in mammalien cells.		
Sequence:	MELRVGNRYR LGRKIGSGSF GDIYLGTDIA AGEEVAIKLE CVKTKHPQLH IESKIYKMMQ		
	GGVGIPTIRW CGAEGDYNVM VMELLGPSLE DLFNFCSRKF SLKTVLLLAD QMISRIEYIH		
	SKNFIHRDVK PDNFLMGLGK KGNLVYIIDF GLAKKYRDAR THQHIPYREN KNLTGTARYA		
	SINTHLGIEQ SRRDDLESLG YVLMYFNLGS LPWQGLKAAT KRQKYERISE KKMSTPIEVL		
	CKGYPSEFAT YLNFCRSLRF DDKPDYSYLR QLFRNLFHRQ GFSYDYVFDW NMLKFGASRA		
	ADDAERERRD REERLRHSRN PATRGLPSTA SGRLRGTQEV APPTPLTPTS HTANTSPRPV		
	SGMERERKVS MRLHRGAPVN VSSSDLTGRQ DTSRMSTSQI PGRVASSGLQ SVVHR <b>Sequence</b>		
	without tag. The proposed Purification-Tag is based on experiences with the expression		
	system, a different complexity of the protein could make another tag necessary. In case you		
	have a special request, please contact us.		
Characteristics:	Key Benefits:		

- · Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalien cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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 try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

## **Target Details**

Target:

Casein Kinase 1 delta (CSNK1D)

Alternative Name:

Csnk1d (CSNK1D Products)

Background:

Casein kinase I isoform delta (CKI-delta) (CKId) (EC 2.7.11.1) (Tau-protein kinase CSNK1D) (EC 2.7.11.26), FUNCTION: 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 phosphorylation. 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. Phosphorylates NEDD9/HEF1

	(PubMed:29191835). 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,
	ECO:0000269 PubMed:29191835}.
Molecular Weight:	47.3 kDa
UniProt:	Q9DC28
Pathways:	Hedgehog Signaling, M Phase
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.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

-80 °C

Store at -80°C.

12 months

Storage:

Expiry Date:

Storage Comment: