Datasheet for ABIN3134469

LIM Domain Kinase 1 Protein (LIMK1) (AA 1-647) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	LIM Domain Kinase 1 (LIMK1)
Protein Characteristics:	AA 1-647
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This LIM Domain Kinase 1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MRLTLLCCTW REERMGEEGS ELPVCASCGQ RIYDGQYLQA LNADWHADCF RCCECSVSLS HQYYEKDGQL FCKKDYWARY GESCHGCSEH ITKGLVMVAG ELKYHPECFI CLACGNFIGD GDTYTLVEHS KLYCGQCYYQ TVVTPVIEQI LPDSPGSHLP HTVTLVSIPA SAHGKRGLSV SIDPPHGPPG CGTEHSHTVR VQGVDPGCMS PDVKNSIHVG DRILEINGTP IRNVPLDEID LLIQETSRLL QLTLEHDPHD SLGHGPVSDP SPLSSPVHTP SGQAASSARQ KPVLRSCSID TSPGTSSLAS PASQRKDLGR SESLRVVCRP HRIFRPSDLI HGEVLGKGCF GQAIKVTHRE TGEVMVMKEL IRFDEETQRT FLKEVKVMRC LEHPNVLKFI GVLYKDKRLN FITEYIKGGT LRGIIKNMDS QYPWSQRVSF AKDIASGMAY LHSMNIIHRD LNSHNCLVRE NRNVVVADFG LARLMIDEKN QSEDLRSLKK PDRKKRYTVV GNPYWMAPEM INGRSYDEKV DVFSFGIVLC EIIGRVNADP DYLPRTMDFG LNVRGFLDRY CPPNCPPSFF PITVRCCDLD PEKRPSFVKL EQWLETLRMH LSGHLPLGPQ LEQLERGFWE TYRRGESSLP AHPEVPD **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a**

	special request, please contact us.
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Limk1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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 receival 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

Target:	LIM Domain Kinase 1 (LIMK1)
Alternative Name:	Limk1 (LIMK1 Products)
Background:	Serine/threonine-protein kinase that plays an essential role in the regulation of actin filament dynamics. Acts downstream of several Rho family GTPase signal transduction pathways. Activated by upstream kinases including ROCK1, PAK1 and PAK4, which phosphorylate LIMK1 on a threonine residue located in its activation loop. LIMK1 subsequently phosphorylates and inactivates the actin binding/depolymerizing factors cofilin-1/CFL1, cofilin-2/CFL2 and destrin/DSTN, thereby preventing the cleavage of filamentous actin (F-actin), and stabilizing the actin cytoskeleton. In this way LIMK1 regulates several actin-dependent biological processes including cell motility, cell cycle progression, and differentiation. Phosphorylates TPPP on serine residues, thereby promoting microtubule disassembly. axonal outgrowth and may be involved in brain development. Required for atypical chemokine receptor ACKR2-induced phosphorylation of cofilin (CFL1) (By similarity). Stimulates axonal outgrowth and may be involved in brain development. {ECO:0000250, ECO:0000269|PubMed:15056216, ECO:0000269|PubMed:16204183}.
Molecular Weight:	73.7 kDa Including tag.
UniProt:	P53668
Pathways:	Caspase Cascade in Apoptosis, Regulation of Cell Size, CXCR4-mediated Signaling Events

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 gurantee 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.
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

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

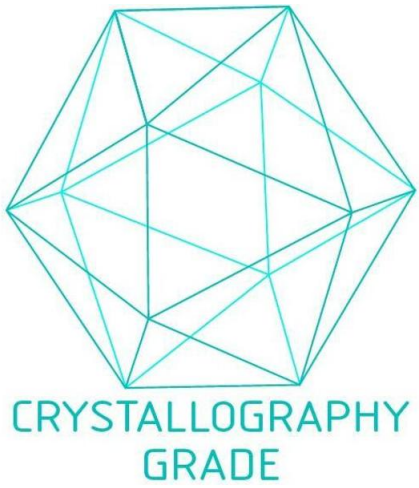

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process

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