Datasheet for ABIN3134469

LIM Domain Kinase 1 Protein (LIMK1) (AA 1-647) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	LIM Domain Kinase 1 (LIMK1)
Protein Characteristics:	AA 1-647
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LIM Domain Kinase 1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
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

Product Details

	Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • 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. 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. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Product Details

Grade:	custom-made

Target Details

Target:	LIM Domain Kinase 1 (LIMK1)
Alternative Name:	Limk1 (LIMK1 Products)
Background:	LIM domain kinase 1 (LIMK-1) (EC 2.7.11.1) (KIZ-1),FUNCTION: Serine/threonine-protein kinase that plays an essential role in the regulation of actin filament dynamics (PubMed:15056216, PubMed:16204183). Acts downstream of several Rho family GTPase signal transduction pathways (PubMed:15056216). 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. Stimulates axonal outgrowth and may be involved in brain development (By similarity). {ECO:0000250|UniProtKB:P53667, ECO:0000269|PubMed:15056216, ECO:0000269|PubMed:16204183}.
Molecular Weight:	72.8 kDa
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 guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional

Application Details

	components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months