Datasheet for ABIN3136029

DGKZ Protein (AA 1-929) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	DGKZ
Protein Characteristics:	AA 1-929
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DGKZ protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MEPRDPSPEG RSSDSESASA SSSGSERDAG PEPDKAPRRL TKRRFPGLRL FGHRKAITKS GLQHLAPPPP TPGAPCGESE EQIQSTVDWS ESAVYGEHIW FETNVSGDFC YVGEQHCVAK MLPKSAPRKK CAACKIVVHT QCIKQLEKIN FRCKPSFRES GSRNVREPTF VRHHWVHRRR QDGKCRHCGK GFQQKFTFHS KEIVAISCSW CKQAYHSKVS CFMMQQIEEP CSLGVHAAVV IPPTWILRAR RPQNTLKASK KKKRASFKRR SSKKGPEEGR WRPFIIRPTP SPLMKPLLVF VNPKSGGNQG AKIIQSFLWY LNPRQVFDLS QGGPREALEM YRKVHNLRIL ACGGDGTVGW ILSTLDQLRL KPPPPVAILP LGTGNDLART LNWGGGYTDE PVSKILSHVE EGNVVQLDRW DLRAEPNPEA GPEERDDGAT DRLPLDVFNN YFSLGFDAHV TLEFHESREA NPEKFNSRFR NKMFYAGTAF SDFLMGSSKD LAKHIRVVCD GMDLTPKIQD LKPQCIVFLN IPRYCAGTMP WGHPGEHHDF EPQRHDDGYL EVIGFTMTSL AALQVGGHGE RLTQCREVLL TTAKAIPVQV DGEPCKLSAS RIRIALRNQA TMVQKAKRRS TAPLHSDQQP VPEQLRIQVS RVSMHDYEAL

HYDKEQLKEA SVPLGTVVVP GDSDLELCRA HIERLQREPD GAGAKSPMCH QLSSKWCFLD ATTASRFYRI DRAQEHLNYV TEIAQDEIYI LDPELLGASA RPDLPTPTSP LPASPCSPTP GSMQGDTALP QGEELIEAAK RNDCCKLQEL HRAGGDLMHR DQKSRTLLHH AVSTGSKEVV RYLLDHAPPE ILDAVEENGE TCLHQAAALG QRTICHYIVE AGASLMKTDL QGDTPRQRAE KAQDTELAAY LENRQHYQMI QREDQETAV

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.

Product Details

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).
Grade:	custom-made

Target Details

Target:	DGKZ
Alternative Name:	Dgkz (DGKZ Products)
Background:	Diacylglycerol kinase zeta (DAG kinase zeta) (EC 2.7.1.107) (EC 2.7.1.93) (Diglyceride kinase zeta) (DGK-zeta),FUNCTION: Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:12883552). Thereby, acts as a central switch between the signaling pathways activated by these second messengers with different cellular targets and opposite effects in numerous biological processes (PubMed:12883552). Also plays an important role in the biosynthesis of complex lipids (Probable). Does not exhibit an acyl chain-dependent substrate specificity among diacylglycerol species. Can also phosphorylate 1-alkyl-2-acylglycerol in vitro but less efficiently and with a preference for alkylacylglycerols containing an arachidonoyl group (By similarity). The biological processes it is involved in include T cell activation since it negatively regulates T-cell receptor signaling which is in part mediated by diacylglycerol (PubMed:12883552). By generating phosphatidic acid, stimulates PIP5KIA activity which regulates actin polymerization (By similarity). Through the same mechanism could also positively regulate insulin-induced translocation of SLC2A4 to the cell membrane (PubMed:27739494). Regulates RASGRP1 activity (By similarity). {ECO:0000250|UniProtKB:Q13574, ECO:0000269|PubMed:12883552, ECO:0000269|PubMed:27739494, ECO:0000305|PubMed:12883552}.
Molecular Weight:	104.0 kDa
UniProt:	Q80UP3
Pathways:	Myometrial Relaxation and Contraction

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	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 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