

Datasheet for ABIN3092118
DGKI Protein (AA 1-1065) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	DGKI
Protein Characteristics:	AA 1-1065
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DGKI protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MDAAGRGCHL LPLPAARGPA RAPAAAAAAAA ASPPGPCSGA ACAPSAAAGA GAMNPSSSAG
EEKGATGGSS SSGSGAGSCC LGAEGGADPR GAGSAAAAGA AALDEPAAAG QKEKDEALEE
KLRNLTRFKQ VSYRKAISRA GLQHLAPAHP LSLPVANGPA KEPRATLDWS ENAVNGEHLW
LETNVSGDLC YLGEENCQVR FAKSALRRKC AVCKIVVHTA CIEQLEKINF RCKPTFREGG
SRSPRENFVR HHWVHRRRQE GKCKQCGKGF QQKFSFHSKE IVAISCSWCK QAFHNKVTCF
MLHHIEEPCS LGAHAAVIVP PTWIIKVKKP QNSLKASNRK KKRTSFKRKA SKRGMEQENK
GRPFVIKPI SPLMKPLLVF VNPKSGGNQG TKVLQMFMWY LNPRQVFDLS QEGPKDALEL
YRKVPNLRIL ACGGDGTVGW ILSILDELQL SPQPPVGVLP LGTGNDLART LNWGGGYTDE
PVSKILCQVE DGTVVQLDRW NLHVERNPD L PPEELEDGVC KLPLNVFN FSLGFDAHVT
LEFHESREAN PEKFNSRFRN KMFYAGAAFS DFLQRSSRD L SKHVKVVCDG TDLTPKIQEL
KFQCIVFLNI PRYCAGTMPW GNPGDHDFE PQRHDDGYIE VIGFTMASLA ALQVGGHGER
LHQCREVMLL TYKSIPMQVD GEPCRLAPAM IRISLRNQAN MVQKSKRRTS MPLLNDPQSV

PDRLRIRVNK ISLQDYEGFH YDKEKLREAS ISDWLRTIAG ELVQSFGAIP LGILVVRGDC
DLETCRMYID RLQEDLQSVS SGSQRVHYQD HETSFPRLS AQLSPRWCF LDDRSQEHLH
FVMEISQDEI FILDPDMVVS QPAGTPPGMP DLVVEQASGI SDWWNPALRK RMLS DSGGLGM
IAPYYEDSDL KDLSHSRVLQ SPVSSDHAI LQAVIAGDLM KLIESYKNGG SLLIQGPDHC
SLLHYAAKTG NGEIVKYILD HGPELDDMA DSETGETALH KAACQRNRAV CQLLVDAGAS
LRKTDSKGKT PQERAQQAGD PDLAAYLESR QNYKVIGHED LETAV

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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.

Product Details

- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	DGKI
Alternative Name:	DGKI (DGKI Products)
Background:	<p>Diacylglycerol kinase iota (DAG kinase iota) (DGK-iota) (EC 2.7.1.107),FUNCTION: Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:9830018, PubMed:23949095). 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 (Probable). Has probably no preference for any of the diacylglycerols in terms of the acyl chain composition, especially for the acyl chain at the sn-2 position (PubMed:9830018). By controlling the diacylglycerol/DAG-mediated activation of RASGRP3, negatively regulates the Rap1 signaling pathway. May play a role in presynaptic diacylglycerol/DAG signaling and control neurotransmitter release during metabotropic glutamate receptor-dependent long-term depression (By similarity).</p> <p>{ECO:0000250 UniProtKB:D3YWQ0, ECO:0000269 PubMed:23949095, ECO:0000269 PubMed:9830018, ECO:0000305}.</p>
Molecular Weight:	117.0 kDa
UniProt:	075912

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 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. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



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