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Datasheet for ABIN3092084

DGKQ Protein (AA 1-942) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	DGKQ
Protein Characteristics:	AA 1-942
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DGKQ protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence: MAAAAEPGAR AWLGGGSPRP GSPACSPVLG SGGRARPGPG PGPGERAGV RAPGPAAAPG
HSFRKVTLLK PTFCHLCSDF IWGLAGFLCD VCNFMSHEKC LKHVRIPCTS VAPSLVRVPV
AHCFGPRGLH KRKFCVCRK VLEAPALHCE VCELHLHPDC VPFACSDCRQ CHQDGHQDHD
THHHHWREGN LPSGARCEVC RKTCGSSDVL AGVRCEWCGV QAHSLCSAAL APECGFGRLLR
SLVLPPACVR LLPGGFSKTQ SFRIVEAAEP GEGGDGADGS AAVGPGRETQ ATPESGKQTL
KIFDGDDAVR RSQFRLVTVS RLAGAEVLE AALRAHHIPE DPGHLELCRL PPSSQACDAW
AGGKAGSAVI SEEGRSPGSG EATPEAWVIR ALPRAQEVK IYPGWLKVGV AYSVSRVTPK
STARSVLEV LPLLGRQAES PESFQLVEVA MGCRRHVQRTM LMDEQPLLDR LQDIRQMSVR
QVSQTRFYVA ESRDVAPHVS LFGVGLPPGL SPEEYSSLLH EAGATKATVW SVSHIYSSQG
AVVLDVACFA EAERLYMLLK DMAVRGRLLT ALVLPDLLHA KLPPDSCPLL VFNPKSGGL
KGRDLLCSFR KLLNPHQVFD LTNGGPLPGL HLFSQVPCFR VLVCGGDGTW GWVLGALEET
RYRLACPEPS VAILPLGTGN DLGRVLRWGA GYSGEDPFSV LLSVDEADAV LMDRWTILLD

AHEAGSAEND TADAEPKIV QMSNYCGIGI DAELSLDFHQ AREEEP GKFT SRLHNKGVVY
RVGLQKISHS RSLHKQIRLQ VERQVELPS IEGLIFINIP SWGSGADLWG SDSDFEKP
RMDDGALLEV VGTGVVHMGQ VQGGLRSGIR IAQGSYFRVT LLKATPVQVD GEPWVQAPGH
MIISAAGPKV HMLRKAKQKP RRAGTTRDAR ADAAPAPESD PR

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.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

Product Details

- 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:	DGKQ
Alternative Name:	DGKQ (DGKQ Products)
Background:	<p>Diacylglycerol kinase theta (DAG kinase theta) (DGKtheta) (EC 2.7.1.107) (EC 2.7.1.93) (Diglyceride kinase theta) (DGK-theta),FUNCTION: Diacylglycerol kinase that converts diacylglycerol/DAG into phosphatidic acid/phosphatidate/PA and regulates the respective levels of these two bioactive lipids (PubMed:9099683, PubMed:11309392, PubMed:22627129). 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:11309392, PubMed:17664281, PubMed:26748701). Within the adrenocorticotrophic hormone signaling pathway, produces phosphatidic acid which in turn activates NR5A1 and subsequent steroidogenic gene transcription (PubMed:17664281). Also functions downstream of the nerve growth factor signaling pathway being specifically activated in the nucleus by the growth factor (By similarity). Through its diacylglycerol activity also regulates synaptic vesicle endocytosis (PubMed:26748701). {ECO:0000250 UniProtKB:D3ZEY4, ECO:0000269 PubMed:11309392, ECO:0000269 PubMed:17664281, ECO:0000269 PubMed:22627129, ECO:0000269 PubMed:26748701, ECO:0000269 PubMed:9099683}.</p>
Molecular Weight:	101.2 kDa
UniProt:	P52824

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