

Datasheet for ABIN3128058

GRK2 Protein (AA 1-689) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	GRK2 (ADRBK1)
Protein Characteristics:	AA 1-689
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GRK2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MADLEAVLAD VSYLMAMEKS KATPAARASK KILLPEPSIR SVMQKYLEDR GEVTFEKIFS</p> <p>QKLGyllFRD FCLNHLEEAk PLVEFYEEIK KYEKLETEEE RVVRSREIFD SYIMKELLAC</p> <p>SHPFSKNATE HVQGHlVKKQ VPPDLFQPYI EEICQNLRGD VFQKFIESDK FTRFCQWKNV</p> <p>ELNIHlTMND FSVHRIIGRG GFGEVYGCRK ADTGKMYAMK CLDKKRIKMK QGETLALNER</p> <p>IMLSlVSTGD CPFIVCMSYA FHTPDKLSFI LDlMNGGDLH YHlSQHGvFS EADMRFYAAE</p> <p>lILGLEHMHN RFVvYRDlKP ANILLDEHGh VRISDLGLAC DFSKKRPHAS VGTHGYMAPE</p> <p>VLQKGvAYDS SADWFSLGCM LFKLLRGHSP FRQHKTKDKH EIDRMTlTMA VELPDSFSPE</p> <p>LRSllEGllQ RDVNRRlGCL GRGAQEVKES PFFRSldWQM VFLQKYPPPL IPPRGEVNAA</p> <p>DAFDIGSFDE EDTGIGKllD SDQELYRNFP LTISERWQQE VAETVFDtIN AETDRLEARK</p> <p>KAKNKQLGHE EDYAlGKDCI VHGYMSKMGN PFLTQWQRRY FYlFPNRLEW RGEGEAPQSL</p> <p>LTMEElQSVE ETQIKERKCL LLKIRGGKQF VLQCDSDPEL VQWKKElRDA YREAQQLVQR</p>

VPKMKNKPRS PVVELSKVPL IQRGSANGL

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®).

Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: GRK2 (ADRBK1)

Alternative Name: Grk2 ([ADRBK1 Products](#))

Background: Beta-adrenergic receptor kinase 1 (Beta-ARK-1) (EC 2.7.11.15) (G-protein-coupled receptor kinase 2),FUNCTION: Specifically phosphorylates the agonist-occupied form of the beta-adrenergic and closely related receptors, probably inducing a desensitization of them (By similarity). Key regulator of LPAR1 signaling (By similarity). Competes with RALA for binding to LPAR1 thus affecting the signaling properties of the receptor (By similarity). Desensitizes LPAR1 and LPAR2 in a phosphorylation-independent manner (By similarity). Positively regulates ciliary smoothened (SMO)-dependent Hedgehog (Hh) signaling pathway by facilitating the trafficking of SMO into the cilium and the stimulation of SMO activity (By similarity). Inhibits relaxation of airway smooth muscle in response to blue light (PubMed:30284927). {ECO:0000250|UniProtKB:P21146, ECO:0000250|UniProtKB:P25098, ECO:0000269|PubMed:30284927}.

Molecular Weight: 79.6 kDa

UniProt: [Q99MK8](#)

Pathways: [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Regulation of G-Protein Coupled Receptor Protein Signaling](#), [CXCR4-mediated Signaling Events](#), [G-protein mediated Events](#), [Interaction of EGFR with phospholipase C-gamma](#), [Thromboxane A2 Receptor Signaling](#)

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.

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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