Datasheet for ABIN3095123

RAPGEF3 Protein (AA 1-923) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	RAPGEF3
Protein Characteristics:	AA 1-923
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAPGEF3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Sequence:	MKVGWPGESC WQVGLAVEDS PALGAPRVGA LPDVVPEGTL LNMVLRRMHR PRSCSYQLLL EHQRPSCIQG LRWTPLTNSE ESLDFSESLE QASTERVLRA GRQLHRHLLA TCPNLIRDRK YHLRLYRQCC SGRELVDGIL ALGLGVHSRS QVVGICQVLL DEGALCHVKH DWAFQDRDAQ FYRFPGPEPE PVRTHEMEEE LAEAVALLSQ RGPDALLTVA LRKPPGQRTD EELDLIFEEL LHIKAVAHLS NSVKRELAAV LLFEPHSKAG TVLFSQGDKG TSWYIIWKGS VNVVTHGKGL VTTLHEGDDF GQLALVNDAP RAATIILRED NCHFLRVDKQ DFNRIIKDVE AKTMRLEEHG KVVLVLERAS QGAGPSRPPT PGRNRYTVMS GTPEKILELL LEAMGPDSSA HDPTETFLSD FLLTHRVFMP SAQLCAALLH HFHVEPAGGS EQERSTYVCN KRQQILRLVS QWVALYGSML HTDPVATSFL QKLSDLVGRD TRLSNLLREQ WPERRRCHRL ENGCGNASPQ MKARNLPVWL PNQDEPLPGS SCAIQVGDKV PYDICRPDHS VLTLQLPVTA SVREVMAALA QEDGWTKGQV LVKVNSAGDA IGLQPDARGV ATSLGLNERL FVVNPQEVHE LIPHPDQLGP TVGSAEGLDL VSAKDLAGQL TDHDWSLFNS IHQVELIHYV LGPQHLRDVT TANLERFMRR FNELQYWVAT

ELCLCPVPGP RAQLLRKFIK LAAHLKEQKN LNSFFAVMFG LSNSAISRLA HTWERLPHKV RKLYSALERL LDPSWNHRVY RLALAKLSPP VIPFMPLLLK DMTFIHEGNH TLVENLINFE KMRMMARAAR MLHHCRSHNP VPLSPLRSRV SHLHEDSQVA RISTCSEQSL STRSPASTWA YVQQLKVIDN QRELSRLSRE LEP

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®): 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:	RAPGEF3
Alternative Name:	RAPGEF3 (RAPGEF3 Products)
Background:	Rap guanine nucleotide exchange factor 3 (Exchange factor directly activated by cAMP 1) (Exchange protein directly activated by cAMP 1) (EPAC 1) (Rap1 guanine-nucleotide-exchange factor directly activated by cAMP) (cAMP-regulated guanine nucleotide exchange factor I) (cAMP-GEFI),FUNCTION: Guanine nucleotide exchange factor (GEF) for RAP1A and RAP2A small GTPases that is activated by binding cAMP. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which it activates the PI3K gamma complex and which is involved in angiogenesis. Plays a role in the modulation of the cAMP-induced dynamic control of endothelial barrier function through a pathway that is independent on Rho-mediated signaling. Required for the actin rearrangement at cell-cell junctions, such as stress fibers and junctional actin. {ECO:0000269|PubMed:10777494, ECO:0000269|PubMed:21840392, ECO:0000269|PubMed:9853756}.
Molecular Weight:	103.8 kDa
UniProt:	O95398
Pathways:	cAMP Metabolic Process

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)

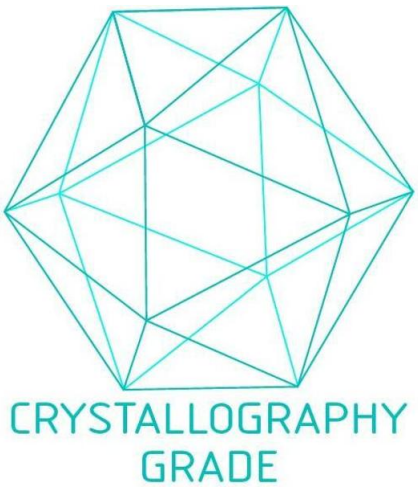

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process