

Datasheet for ABIN3089056

**ARHGEF5 Protein (AA 1-1597) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	ARHGEF5
Protein Characteristics:	AA 1-1597
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ARHGEF5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MEAEAAQRGA SPPISAIIEF SIIEAPMRS SQVSALGLEA QEDEDPSYKW REEHRLSATQ QSELRDVC DY AIETMPSFPK EGSADVEPNQ ESLVAEACDT PEHWEAVPQS LAGRQARTLA PPELWACPIQ SEHLDMAPFS SDLGSEEEV EFWPGLTSLT LGSGQAESEE ETSSDNSGQT RYYSPCEEHP AETNQNEGSE SGTIRQGEEL PPEELQESQG LLHPQEVQVL EEQGQQEAGF RGEGTLREDV CADGLLGEEQ MIEQVNDEKG EQKQKQEQVQ DVMLGRQGER MGLTGEPEGL NDGEWEQEDM ERKAQGQGGP EQGEERKREL QVPEENRADS QDEKSQTFLG KSEEVTKGQE DHGIKEKGVP VSGQEAKEPE SWDGGRLGAV GRARSREEN EHHGPSMPAL IAPEDSPHCD LFPGASYLMT QIPGTQTESR AEELSPAALS PSLEPIRCSH QPISLLGSFL TEESPDKEID QNSQQEESRL RKGTVSSQGT EVVFASASVT PPRTPD SAPP SPAEAYPITP ASVSARPPVA FPRRETSCAA RAPETASAPL SMDDPSPCGT SEMCPAALYG FPSTGTSPPR PPA NSTGT VQ HLRSDSFPGS HRTEQTPDLV GMLLSYSHSE LPQRPPKPAI YSSVTPRRDR RSGRDYSTVS ASPTALSTLK QDSQESISNL ERPSSPSIQ PWVSPHNPAF ATESPAYGSS PSFVSMEDVR
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IHEPLPPPPP QRRDTHPSV ETDGHARVVV PTLKQHSHP PLALGSLHA PHKGPLPQAS  
DPAVARQHRP LPSTPDSSH AQATPRWRYN KPLPPTDLP QPHLPPISAP GSSRIYRPLP  
PLIIDPPTTE PPPLPPKSRG RSRSTRGGHM NSGGHAKTRP ACQDWTVPLP ASAGRTSWPP  
ATARSTESFT STSRSEVS PGMAFSNMTN FLCPSSTTP WTPELQGPTS KDEAGVSEHP  
EAPAREPLRR TTPQQGASGP GRSPVGQARQ PEKPSHLHLE KASSWPHRRD SGRPPGDSSG  
QAVAPSEGAN KHKGWSRQGL RRPISLPEGS SDSRGPAVEK HPGPSDTPVF REKKPKEVMG  
GFSRRCSKLI NSSQLLYQEY SDVVLNKEIQ SQQRLESLSE TPGPSSRPQP RKALVSSSEY  
LQRLSMASG SLWQEIPVVR NSTVLLSMTH EDQKLQEVKF ELIVSEASYL RSLNIAVDHF  
QLSTSLRATL SNQEHQWLFS RLQDVRDVSA TFLSDLEENF ENNIFSFQVC DVVLNHAPDF  
RRVYLPYVTN QTYQERTFQS LMNSNSNFRE VLEKLESDPV CQRLSLKSFL ILPFQRITRL  
KLLLQNILKR TQPGSSEAE ATKAHHALEQ LIRDCNNNVQ SMRRTEELIY LSQKIEFECK  
IFPLISQSRW LVKSGELTAL EFSASPLRR KLNTRPVHLH LFNDCLLLSR PREGSRFLV  
DHAPFSSIRG EKCEMKLHGP HKNLFRFLR QNTQGAQAEF LFRTEQSEK LRWISALAMP  
REELDLLEY NSPQVCLRA YKPRENDELA LEKADVMMVT QSSDGWLEG VRLSDGERGW  
FPVQQVEFIS NPEVRAQNLK EAHRVKTAKL QLVEQQA

**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-

Product Details

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.
- 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:	ARHGEF5
Alternative Name:	ARHGEF5 ( <a href="#">ARHGEF5 Products</a> )
Background:	Rho guanine nucleotide exchange factor 5 (Ephexin-3) (Guanine nucleotide regulatory protein TIM) (Oncogene TIM) (Transforming immortalized mammary oncogene) (p60 TIM),FUNCTION: Guanine nucleotide exchange factor which activates Rho GTPases (PubMed:15601624). Strongly activates RHOA (PubMed:15601624). Also strongly activates RHOB, weakly activates RHOC and RHOG and shows no effect on RHOD, RHOV, RHOQ or RAC1 (By similarity). Involved in regulation of cell shape and actin cytoskeletal organization (PubMed:15601624). Plays a role in actin organization by generating a loss of actin stress fibers and the formation of membrane

## Target Details

ruffles and filopodia (PubMed:14662653). Required for SRC-induced podosome formation (By similarity). Involved in positive regulation of immature dendritic cell migration (By similarity). {ECO:0000250|UniProtKB:E9Q7D5, ECO:0000269|PubMed:14662653, ECO:0000269|PubMed:15601624}.

Molecular Weight: 176.8 kDa

UniProt: [Q12774](#)

## 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