

Datasheet for ABIN3095035  
**ARHGAP44 Protein (AA 1-818) (Strep Tag)**



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## Overview

Quantity:	250 µg
Target:	ARHGAP44
Protein Characteristics:	AA 1-818
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ARHGAP44 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

## Product Details

Brand:	AliCE®
Sequence:	MKKQFNMRQ LANQTVGRAE KTEVLSEDLL QVEKRLELVK QVSHSTHKKL TACLQQQGA EADKRSKKLP LTTLAQCLME GSAILGDDTL LGKMLKLCGE TEDKLAQELI HFELQVERDV IEPLFLLAEV EIPNIQQRK HLAKLVLDM DSSRTRWQQTSS KSSGLSSSLQ PAGAKADALR EEMEEAANRV EICRDQLSAD MYSFVAKEID YANYFQTLIE VQAEYHRKSL TLLQAVLPQI KAQQEAWVEK PSFGKPLEEH LTISGREIAF PIEACVTMLL ECGMQEEGLF RVAPSASKLK KLKAALDCCV VDVQEYSADP HAIAGALKSY LRELPEPLMT FELYDEWIQA SNVQEQDKKL QALWNACEKL PKANHNNIRY LIKFLSKLSE YQDVNKMTPS NMAIVLGP NL LWPQAEGNIT EMMTTVSLQI VGIIEPIQH ADWFFPGEIE FNITGNYGSP VHVNHANANYS SMPSPDMDPA DRRQPEQARR PLSVATDNMM LEFYKKDGLR KIQSMGVRVM DTNWWARRGS SAGRKVS CAP PSMQPPAPPA ELAAPLP SPL PEQPLDSPAA PALSPSGLGL QPGPERTSTT KSKELSPGSA QKSGPGSSQG TACAGTQPGA QPGAQPGASP SPSQPPADQS PHTLRKVS SKK LAPIPPKV PF

GQPGAMADQS AGQPSPVLSLSTPPSTPSPY GLSYPQGYSL ASGQLSPAAA PPLASPSVFT  
STLSKSRPTP KPRQRPTLPP PQPPTVNLSSPQSTEAPM LDGMSPGESM STDLVHFDIP  
SIHIELGSTL RLSPLEHMRR HSVTDKRDSE EESESTAL

**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.**

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### 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.

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### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression

## Product Details

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System (ALiCE®).

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

Grade: custom-made

## Target Details

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Target: ARHGAP44

Alternative Name: ARHGAP44 ([ARHGAP44 Products](#))

Background: Rho GTPase-activating protein 44 (NPC-A-10) (Rho-type GTPase-activating protein RICH2) (RhoGAP interacting with CIP4 homologs protein 2) (RICH-2),FUNCTION: GTPase-activating protein (GAP) that stimulates the GTPase activity of Rho-type GTPases. Thereby, controls Rho-type GTPases cycling between their active GTP-bound and inactive GDP-bound states. Acts as a GAP at least for CDC42 and RAC1 (PubMed:11431473). In neurons, is involved in dendritic spine formation and synaptic plasticity in a specific RAC1-GAP activity (By similarity). Limits the initiation of exploratory dendritic filopodia. Recruited to actin-patches that seed filopodia, binds specifically to plasma membrane sections that are deformed inward by acto-myosin mediated contractile forces. Acts through GAP activity on RAC1 to reduce actin polymerization necessary for filopodia formation (By similarity). In association with SHANK3, promotes GRIA1 exocytosis from recycling endosomes and spine morphological changes associated to long-term potentiation (By similarity). {ECO:0000250|UniProtKB:F1LQX4, ECO:0000250|UniProtKB:Q5SSM3, ECO:0000269|PubMed:11431473}.

Molecular Weight: 89.2 kDa

UniProt: [Q17R89](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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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