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Datasheet for ABIN3135316

## ARHGEF2 Protein (AA 1-985) (His tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	ARHGEF2
Protein Characteristics:	AA 1-985
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ARHGEF2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

#### Product Details

Sequence: MSRIESLTRA RIDRSKEQAT KTREKEKMKE AKDARYTNGH LFTTISVSGM TMCYACNKSI  
TAKEALICPT CNVTIHNRCR DTLANCTKVK QKQKKAALLR NNTALQSVSL RSKTTTRERP  
TSAIYPSDSF RQSLGSRG LSSLAKSV STTNIAGHFN DESPLGLRQI LSQSTDLSNM  
RNRTLVSVEL IDEGVEVFYN ELMSDFEMDE KDFEADSWSL AVDSSFLQQH KKEVMKKQDV  
IYELIQTELH HVRTLKIMTR LFRTGMLEEL QMEPEVVQGL FPCVDELSDI HTRFLNQLLE  
RRRQALCPGS TRNFVIHRLG DLLISQFSGS NAEQMRKTYS EFCSRHTKAL KLYKELYARD  
KRFQQFIRKM TRSAVLKRHG VQECILLVTQ RITKYPVLIN RILQNSHGVE EEEQDLASAL  
GLVKELLSNV DQDVHELEKE ARLQEIYNRM DPRAQTPVPG KGPFGRDELL RRKLIHEGCL  
LWKTATGRFK DVLLLLMTDV LVFLQEKDQK YIFTSLDKPS VVSLQNLIVR DIANQAKGMF  
LISSGPEMY EVHAASRDDR TTWIRVIQQS VRLCPSREDF PLIETEDKAY LRRIKTKLQQ  
KNQALVELLQ KVELFAEMV HFQALKAGFV GMPPPALPRG LFRLESFESL RGERLLKDAL  
REVEGLKDLL LGPCVDLPMT SREPALPLDS DSGSCPGVTA NGEARTFNCS IELCRADSDS

SQKDRNGNQL RSPQEEVLQP LINLYGLLHG LQAVVVQQR LMEALFPEGP ERWEKLSRAN  
SRDGEAGRAA VASVTPEKQA TELALLQRQH TLLQEELRRC QRLGEERATE AGSLEARLRE  
SEQARALLER EAAEIRRQLA ALGQNEPLPA EAPWARRPLD PRRRSLPAGD ALYLSFNPPQ  
PSRGHDLRLDL PVTVRSLHRP FDDREAQELG SPEDRLQDSS DPDTGSEEEV SSRLSPPHSP  
RDFTRMQDIP EETESRDGEP TASES

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Arhgef2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

## Product Details

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Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

## Target Details

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Target:	ARHGEF2
Alternative Name:	Arhgef2 ( <a href="#">ARHGEF2 Products</a> )
Background:	Activates Rho-GTPases by promoting the exchange of GDP for GTP. May be involved in epithelial barrier permeability, cell motility and polarization, dendritic spine morphology, antigen presentation, leukemic cell differentiation, cell cycle regulation, innate immune response, and cancer. Binds Rac-GTPases, but does not seem to promote nucleotide exchange activity toward Rac-GTPases. May stimulate instead the cortical activity of Rac. Inactive toward CDC42, TC10, or Ras-GTPases. Forms an intracellular sensing system along with NOD1 for the detection of microbial effectors during cell invasion by pathogens. Involved in innate immune signaling transduction pathway promoting cytokine IL6/interleukin-6 and TNF-alpha secretion in macrophage upon stimulation by bacterial peptidoglycans, acts as a signaling intermediate between NOD2 receptor and RIPK2 kinase. Contributes to the tyrosine phosphorylation of RIPK2 through Src tyrosine kinase leading to NF-kappaB activation by NOD2 (By similarity). {ECO:0000250}.
Molecular Weight:	112.9 kDa Including tag.
UniProt:	<a href="#">Q60875</a>
Pathways:	<a href="#">Negative Regulation of intrinsic apoptotic Signaling</a>

## 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:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images

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