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Datasheet for ABIN3094952

## Ras Protein-Specific Guanine Nucleotide-Releasing Factor 2 (RASGRF2) (AA 1-1237) protein (His tag)



Go to Product page

### 1 Image

#### Overview

Quantity:	1 mg
Target:	Ras Protein-Specific Guanine Nucleotide-Releasing Factor 2 (RASGRF2)
Protein Characteristics:	AA 1-1237
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	His tag
Application:	Western Blotting (WB), Crystallization (Crys), ELISA, SDS-PAGE (SDS)

#### **Product Details**

Sequence:

MQKSVRYNEG HALYLAFLAR KEGTKRGFLS KKTAEASRWH EKWFALYQNV LFYFEGEQSC RPAGMYLLEG CSCERTPAPP RAGAGQGGVR DALDKQYYFT VLFGHEGQKP LELRCEEEQD GKEWMEAIHQ ASYADILIER EVLMQKYIHL VQIVETEKIA ANQLRHQLED QDTEIERLKS EIIALNKTKE RMRPYQSNQE DEDPDIKKIK KVQSFMRGWL CRRKWKTIVQ DYICSPHAES MRKRNQIVFT MVEAESEYVH QLYILVNGFL RPLRMAASSK KPPISHDDVS SIFLNSETIM FLHEIFHQGL KARIANWPTL ILADLFDILL PMLNIYQEFV RNHQYSLQVL ANCKQNRDFD KLLKQYEANP ACEGRMLETF LTYPMFQIPR YIITLHELLA HTPHEHVERK SLEFAKSKLE ELSRVMHDEV SDTENIRKNL AIERMIVEGC DILLDTSQTF IRQGSLIQVP SVERGKLSKV RLGSLSLKKE GERQCFLFTK HFLICTRSSG GKLHLLKTGG VLSLIDCTLI EEPDASDDDS KGSGQVFGHL DFKIVVEPPD AAAFTVVLLA PSRQEKAAWM SDISQCVDNI RCNGLMTIVF EENSKVTVPH MIKSDARLHK DDTDICFSKT LNSCKVPQIR YASVERLLER LTDLRFLSID FLNTFLHTYR IFTTAAVVLG KLSDIYKRPF TSIPVRSLEL FFATSONNRG EHLVDGKSPR

LCRKFSSPPP LAVSRTSSPV RARKLSLTSP LNSKIGALDL TTSSSPTTTT QSPAASPPPH
TGQIPLDLSR GLSSPEQSPG TVEENVDNPR VDLCNKLKRS IQKAVLESAP ADRAGVESSP
AADTTELSPC RSPSTPRHLR YRQPGGQTAD NAHCSVSPAS AFAIATAAAG HGSPPGFNNT
ERTCDKEFII RRTATNRVLN VLRHWVSKHA QDFELNNELK MNVLNLLEEV LRDPDLLPQE
RKAAANILRA LSQDDQDDIH LKLEDIIQMT DCMKAECFES LSAMELAEQI TLLDHVIFRS
IPYEEFLGQG WMKLDKNERT PYIMKTSQHF NDMSNLVASQ IMNYADVSSR ANAIEKWVAV
ADICRCLHNY NGVLEITSAL NRSAIYRLKK TWAKVSKQTK ALMDKLQKTV SSEGRFKNLR
ETLKNCNPPA VPYLGMYLTD LAFIEEGTPN FTEEGLVNFS KMRMISHIIR EIRQFQQTSY
RIDHQPKVAQ YLLDKDLIID EDTLYELSLK IEPRLPA

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

#### Characteristics:

- Made in Germany from design to production by highly experienced protein experts.
- Human RASGRF2 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 receival 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.

#### 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.
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	
Target:	Ras Protein-Specific Guanine Nucleotide-Releasing Factor 2 (RASGRF2)
Alternative Name:	RASGRF2 (RASGRF2 Products)
Background:	Functions as a calcium-regulated nucleotide exchange factor activating both Ras and RAC1 through the exchange of bound GDP for GTP. Preferentially activates HRAS in vivo compared to RRAS based on their different types of prenylation. Functions in synaptic plasticity by contributing to the induction of long term potentiation. {ECO:0000269 PubMed:15128856}.
Molecular Weight:	141.7 kDa Including tag.
UniProt:	014827
Pathways:	Neurotrophin Signaling Pathway
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 gurantee though.
Comment:	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.
Restrictions:	For Research Use only

#### Handling

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



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