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Datasheet for ABIN3131163
ARHGEF5 Protein (AA 1-1581) (Strep Tag)

Overview

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| Quantity: | 1 mg |
| Target: | ARHGEF5 |
| Protein Characteristics: | AA 1-1581 |
| Origin: | Mouse |
| Source: | Tobacco (<i>Nicotiana tabacum</i>) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ARHGEF5 protein is labelled with Strep Tag. |
| Application: | ELISA, Western Blotting (WB), SDS-PAGE (SDS) |

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Sequence: MEAEEPEYGV STEVPDIEEL KTIPEGIMRS SQIPALDPEA QEDRDPSYKW TDGHRPVMNQ
SKVLRDMGDH TPNSMAIFFK KESSDMETSQ EILLAEACNT PDQQEAVIQS LKDRLSRTIA
APELLACAVQ EEWLDIPSKL DNRVGAELQS ELMSLTLAVS KEKEEEETSP DTSIPRGSWP
PCKTHPGETE QTQGSGSELL RQGKQLQLEA TQENQGQEGF LQSQEAQGLE EQEGQEVEIQ
EEGTLNEGIC FGLLGEEVEEGFNGNEE EQKQGQIQSY MLLGGQWENE GLSGELEGLN
YSERQENRE RRWVLRDSE EEGQDQESRE VEERRVATQY TENQRLVEKS EIVKRKQRDH
DQTGKVM PVR DQKEVVDSDG RVQGNQDSSG QTAVEGSRPG EDSKPSLPVA SVDPEVLSPG
TLFPGISSV ADIPQIQKEP VCEELSPQAP ALEPTEWSHQ PISPPASFAP EESLDNRTHN
SQQEEFRLRK GIEVVSASTS VAPSGTRDSP PFSPPNVFSS TATLSPVSSS VILPEETPTA
SASADTPHHC GPCETPPLPA KSSRYPCATS DTANPHSPLS SYTGVTQHLR SNSFPGSHRT
EQTPDSL GMS LSFHLELPQ RPPKPAIYGS LTPRRNRRSR DGIVFSDSST ALFALKQDSE
EFTSNPERPS SPHGSPTWGS PQNSAFAIGS PANVSSPPTV SMDMTIREAL LPIPPEKRHS

YSHIVERDGL LHEVASTLKR HSHPPPLTLS SGLHRSSKGS FSLVPDSTVA RQHRPLPSTP
ESPNHTQTSI PSRLRYNKPL PPTPDMPEFY HPSISSSYIS RMYRPLPPVP IIDPSSEPPP
LPPKSRGRSK SIQGGVIHSG GQAKPRPNNQ DWTASTLSVG RTSWPPATGR STESLPLTTSR
CNNEVSPGLA FSNMTNLLSP SSPTTPWIPD LQRPTTKDES GLTEESEPPV RGSFRRSAPQ
EEFNNTRRSA LGSRKNSEKP LHHQLEKASS WPHRRDPART SESSSEQVVL GQVFNKQKGW
NRQGLRRPSI LPSSSDLRN PAAGRLPGSS DSVVFREKKP KEGMGGFSRR CSKLISSQLL
YQEYSDVVLN KEIQSQQLD SLAEPHGLSS PRHRRKALVS SDSYLQRLSM ASSGSLWQEI
PVVRNSTVLL SMTHEDQKLQ EAKFELIVSE ASYLRSLNIA VDHFQHSACL RGTLNQHQQ
WLF SRLQDVR DVSTTFLSDL EENFENNIFS FQVCDVVLNH AADFHRVYLP YVTNQTYQER
TFQSLMNSNS SFREVLEKLE SDPICQRLSL KSFLILPFQR ITRLKLLLQN ILKRTQPGSS
EEAEATKAHH ALEKLIRDCN SNVQRMRRTE ELIYLSQKIE FECKIFPLIS QSRWLKSGE
LTALEFSVSP GLRRKLTRP VHLHLFNDCL LLSRPREGSR FLVFDHAPFS SIRGEKCEMK
LHGPHKNLFR LFLHNAQGT QVEFLFRTEQ QSEKLRWISA LAMPREELDL LECYDSPQVQ
CLRAYKPREN DELALEKADV VMVTQQSSDG WLEGVRLSDG EQGWFPVQVQ EFISNPEVRA
QNLKEAHRVK TAKLQLVEQQ V

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-

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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.

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| Purification: | Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALICE®): <ol style="list-style-type: none">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) |

Target Details

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|-------------------|---|
| Target: | ARHGEF5 |
| Alternative Name: | Arhgef5 (ARHGEF5 Products) |
| Background: | Rho guanine nucleotide exchange factor 5,FUNCTION: Guanine nucleotide exchange factor which activates Rho GTPases (PubMed:19713215, PubMed:21525037). Strongly activates RHOA (PubMed:19713215, PubMed:21525037). Also strongly activates RHOB, weakly activates RHOC and RHOG and shows no effect on RHOD, RHOV, RHOQ or RAC1 (PubMed:19713215). Involved in regulation of cell shape and actin cytoskeletal organization (PubMed:21525037). Plays a role in actin organization by generating a loss of actin stress fibers and the formation of membrane ruffles and filopodia (By similarity). Required for SRC-induced podosome formation (PubMed:21525037). Involved in positive regulation of immature dendritic cell migration |

Target Details

(PubMed:19713215). {ECO:0000250|UniProtKB:Q12774, ECO:0000269|PubMed:19713215, ECO:0000269|PubMed:21525037}.

Molecular Weight: 176.7 kDa

UniProt: [E9Q7D5](#)

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)