

Datasheet for ABIN3137200

## RAPGEF4 Protein (AA 1-1011) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	RAPGEF4
Protein Characteristics:	AA 1-1011
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAPGEF4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MVAHAHAHSQ SSAEWIACLD KRPLERSSED VDIIFTRLKG VKAFEKFHPN LLRQICLCGY</p> <p>YENLEKGITL FRQGDIGTNW YAVLAGSLDV KVSETSSHQD AVTICTLGIG TAFGESILDN</p> <p>TPRHATIVTR ESSELLRIEQ EDFKALWEKY RQYMAGLLAP PYGVMETGSN NDRIPDKENT</p> <p>PLIEPHVPLR PAHTITKVPS EKILRAGKIL RAILSRAPIH MIRDRKYHLK TYRQCCVGTE</p> <p>LVDWMIQQTs CVHSRTQAVG MWQVLLEDGV LNHVDQERHF QDKYLFYRFL DDEREDAPLP</p> <p>TEEEKKECDE ELQDTMLLLS QMGPDAMMRM ILRKPPGQRT VDDLEIIYDE LLHIKALSHL</p> <p>STTVKRELAL VLIFESHAKG GTVLFNQGEV GTSWYIILKG SVNVIYGGK VVCTLHEGDD</p> <p>FGKLALVNDAL PRAASIVLRE DNCHFLRVK EDFNRILRDV EANTVRLKEH DQDVLVLEKV</p> <p>PAGNRAANQG NSQPQQKYTV MSGTPEKILE HFLETIRLEP SLNEATDSVL NDFVMMHCVF</p> <p>MPNTQLCPAL VAHYHAQPSQ GTEQERMDYA LNNKRRVIRL VLQWAAMYGD LLQEDDVAMA</p> <p>FLEEFYVSVS DDARMMAAFK EQLPELEKIV KQISEDAPAP QKKHKVLLQQ FNTGDERAQK</p>

RQPIRGSDDEV LFKVYCIDHT YTTIRVPVAA SVKEVISAVA DKLGSGEGLI IVKMNSGG EK  
VVLKSN DVSV FTTLTINGRL FACPREQFDS LTPLPEQEGP TTGTVGTFEL MSSKDLAYQM  
TTYDWELFNC VHELELIYHT FGRHNFKKTT ANLDLFLRRF NEIQFWVVTE VCLCSQLSKR  
VQLLKKFIKI AAHCKEYKNL NSFFAIVMGL SNVAVSRLAL TWEKLPSKFK KFYAEFESLM  
DPSRNHRAYR LTA AKLEPPL IPFMPLLIKD MTFTHEGNKT FIDNLVNFEK MRMIANTART  
VRYYSQPFN PDAAQANKNH QDVRSYVRQL NVIDNQRTLS QMSHRLEPRR P

**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.

## Product Details

- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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

Grade: custom-made

## Target Details

Target: RAPGEF4

Alternative Name: Rapgef4 ([RAPGEF4 Products](#))

Background: Rap guanine nucleotide exchange factor 4 (Exchange factor directly activated by cAMP 2) (Exchange protein directly activated by cAMP 2) (EPAC 2) (cAMP-dependent Rap1 guanine-nucleotide exchange factor) (cAMP-regulated guanine nucleotide exchange factor II) (cAMP-GEFII),FUNCTION: Guanine nucleotide exchange factor (GEF) for RAP1A, RAP1B and RAP2A small GTPases that is activated by binding cAMP. Seems not to activate RAB3A. Involved in cAMP-dependent, PKA-independent exocytosis through interaction with RIMS2. {ECO:0000269|PubMed:11056535}.

Molecular Weight: 115.5 kDa

UniProt: [Q9EQZ6](#)

Pathways: [Hormone Transport, Smooth Muscle Cell Migration](#)

## 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.

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Application Details

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Restrictions: For Research Use only

Handling

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