Datasheet for ABIN3080569

RAP1GDS1 Protein (AA 1-607) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	RAP1GDS1
Protein Characteristics:	AA 1-607
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAP1GDS1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MDNLSDTLKK LKITAVDKTE DSLEGCLDCL LQALAQNNTE TSEKIQASGI LQLFASLLTP QSSCKAKVAN IIAEVAKNEF MRIPCVDAGL ISPLVQLLNS KDQEVLLQTG RALGNICYDS HEGRSAVDQA GGAQIVIDHL RSLCSITDPA NEKLLTVFCG MLMNYSNEND SLQAQLINMG VIPTLVKLLG IHCQNAALTE MCLVAFGNLA ELESSKEQFA STNIAEELVK LFKKQIEHDK REMIFEVLAP LAENDAIKLQ LVEAGLVECL LEIVQQKVDS DKEDDITELK TGSDLMVLLL LGDESMQKLF EGGKGSVFQR VLSWIPSNNH QLQLAGALAI ANFARNDANC IHMVDNGIVE KLMDLLDRHV EDGNVTVQHA ALSALRNLAI PVINKAKMLS AGVTEAVLKF LKSEMPPVQF KLLGTLRMLI DAQAEAAEQL GKNVKLVERL VEWCEAKDHA GVMGESNRLL SALIRHSKSK DVIKTIVQSG GIKHLVTMAT SEHVIMQNEA LVALALIAAL ELGTAEKDLE SAKLVQILHR LLADERSAPE IKYNSMVLIC ALMGSECLHK EVQDLAFLDV VSKLRSHENK SVAQQASLTE QRLTVES

Product Details

	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 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.
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).

Product Details

Grade:	custom-made

Target Details

Target:	RAP1GDS1
Alternative Name:	RAP1GDS1 (RAP1GDS1 Products)
Background:	Rap1 GTPase-GDP dissociation stimulator 1 (Exchange factor smgGDS) (SMG GDS protein) (SMG P21 stimulatory GDP/GTP exchange protein),FUNCTION: Acts as a GEF (guanine nucleotide exchange factor) for the Rho family of small GTP-binding proteins (G proteins) that stimulates the dissociation of GDP to enable subsequent binding of GTP (PubMed:28630045, PubMed:30190425, PubMed:1549351, PubMed:11948427, PubMed:20709748). Additionally, appears to chaperone the processing and/or trafficking of small GTPases containing a C-terminal polybasic region independently of GEF activity (PubMed:20709748, PubMed:21242305). Targets include RAP1A/RAP1B, RHOA, RHOB, RHOC, RAC1 and KRAS (PubMed:1549351, PubMed:11948427, PubMed:20709748, PubMed:24415755). Regulates mitochondrial dynamics by controlling RHOT function to promote mitochondrial fission during high calcium conditions (PubMed:27716788). Able to promote the Ca(2+) release from the endoplasmic reticulum via both inositol trisphosphate (Ins3P) and ryanodine sensitive receptors leading to a enhanced mitochondrial Ca(2+) uptake (PubMed:24349085). {ECO:0000269|PubMed:11948427, ECO:0000269|PubMed:1549351, ECO:0000269|PubMed:20709748, ECO:0000269|PubMed:21242305, ECO:0000269|PubMed:24349085, ECO:0000269|PubMed:24415755, ECO:0000269|PubMed:27716788, ECO:0000269|PubMed:28630045, ECO:0000269|PubMed:30190425, ECO:0000305|PubMed:30190425}., FUNCTION: [Isoform 1]: Acts as a GEF (guanine nucleotide exchange factor) for unprenylated RHOA (PubMed:30190425, PubMed:28630045, PubMed:24415755). Chaperones the entry and passage of small GTPases through the prenylation pathway (PubMed:20709748). Recognizes the last amino acid in the GTPase C-terminal CAAX motif with a preference for 'Leu' over 'Met', indicating involvement in the geranylgeranylation pathway (PubMed:24415755). {ECO:0000269|PubMed:20709748, ECO:0000269|PubMed:24415755, ECO:0000269|PubMed:28630045, ECO:0000269|PubMed:30190425}., FUNCTION: [Isoform 2]: Acts as a GEF (guanine nucleotide exchange factor) for prenylated RHOA (PubMed:28630045, PubMed:30190425, PubMed:21242305). Acts as a GEF for RHOC (PubMed:21242305). Chaperones the downstream trafficking and/or processing of small newly prenylated GTPases (PubMed:20709748). Escorts RAC1 to the nucleus (PubMed:12551911). {ECO:0000269|PubMed:12551911, ECO:0000269|PubMed:20709748,

Target Details

	ECO:0000269|PubMed:21242305, ECO:0000269|PubMed:28630045, ECO:0000269|PubMed:30190425}.
Molecular Weight:	66.3 kDa
UniProt:	P52306
Pathways:	SARS-CoV-2 Protein Interactome

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. 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