Datasheet for ABIN7547906

RAP1GDS1 Protein (AA 1-607) (His tag)

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Overview

Quantity:	1 mg
Target:	RAP1GDS1
Protein Characteristics:	AA 1-607
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RAP1GDS1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat RAP1GDS1 Protein expressed in mammalien cells.
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 **Sequence without tag. The proposed Purification-Tag is based on experiences**

Product Details

	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 to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
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

Target Details

	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, 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.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Buffer:	The buffer composition 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:	12 months