Datasheet for ABIN7551819

PRKAG2 Protein (AA 1-569) (His tag)

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Overview

Quantity:	1 mg
Target:	PRKAG2
Protein Characteristics:	AA 1-569
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PRKAG2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat PRKAG2 Protein expressed in mammalien cells.
Sequence:	MGSAVMDTKK KKDVSSPGGS GGKKNASQKR RSLRVHIPDL SSFAMPLLDG DLEGSGKHSS RKVDSPFGPG SPSKGFFSRG PQPRPSSPMS APVRPKTSPG SPKTVFPFSY QESPPRSPRR MSFSGIFRSS SKESSPNSNP ATSPGGIRFF SRSRKTSGLS SSPSTPTQVT KQHTFPLESY KHEPERLENR IYASSSPPDT GQRFCPSSFQ SPTRPPLASP THYAPSKAAA LAAALGPAEA GMLEKLEFED EAVEDSESGV YMRFMRSHKC YDIVPTSSKL VVFDTTLQVK KAFFALVANG VRAAPLWESK KQSFVGMLTI TDFINILHRY YKSPMVQIYE LEEHKIETWR ELYLQETFKP LVNISPDASL FDAVYSLIKN KIHRLPVIDP ISGNALYILT HKRILKFLQL FMSDMPKPAF MKQNLDELGI GTYHNIAFIH PDTPIIKALN IFVERRISAL PVVDESGKVV DIYSKFDVIN LAAEKTYNNL DITVTQALQH RSQYFEGVVK CNKLEILETI VDRIVRAEVH RLVVVNEADS IVGIISLSDI LQALILTPAG AKQKETETE **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein**

Product Details

	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:	PRKAG2
Alternative Name:	PRKAG2 (PRKAG2 Products)
Background:	5'-AMP-activated protein kinase subunit gamma-2 (AMPK gamma2) (AMPK subunit gamma-2) (H91620p),FUNCTION: AMP/ATP-binding subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism (PubMed:14722619, PubMed:24563466). In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation (PubMed:14722619, PubMed:24563466). AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators (PubMed:14722619, PubMed:24563466). Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton, probably by indirectly activating myosin (PubMed:14722619, PubMed:24563466). Gamma non-catalytic subunit mediates binding to AMP, ADP and ATP, leading to activate or inhibit AMPK: AMP-binding results in allosteric activation of alpha

Target Details

	catalytic subunit (PRKAA1 or PRKAA2) both by inducing phosphorylation and preventing dephosphorylation of catalytic subunits (PubMed:14722619, PubMed:24563466). ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit (PubMed:14722619, PubMed:24563466). ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive (PubMed:14722619, PubMed:24563466). {ECO:0000269|PubMed:14722619, ECO:0000269|PubMed:24563466}.
Molecular Weight:	63.1 kDa
UniProt:	Q9UGJ0
Pathways:	AMPK Signaling, Cellular Glucan Metabolic Process, Ribonucleoside Biosynthetic Process, Regulation of Carbohydrate Metabolic Process, Warburg Effect

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
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

