Datasheet for ABIN7565293

PDPK1 Protein (AA 1-559) (His tag)

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Overview

Quantity:	1 mg
Target:	PDPK1
Protein Characteristics:	AA 1-559
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDPK1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Pdpk1 Protein expressed in mammalien cells.
Sequence:	MARTTSQLYD AVPIQSSVVL CSCPSPSMVR SQTEPGSSPG IPSGVSRQGS TMDGTTAEAR PSTNPLQQHP AQLPPQPRKK RPEDFKFGKI LGEGSFSTVV LARELATSRE YAIKILEKRH IIKENKVPYV TRERDVMSRL DHPFFVKLYF TFQDDEKLYF GLSYAKNGEL LKYIRKIGSF DETCTRFYTA EIVSALEYLH GKGIIHRDLK PENILLNEDM HIQITDFGTA KVLSPESKQA RANSFVGTAQ YVSPELLTEK SACKSSDLWA LGCIIYQLVA GLPPFRAGNE YLIFQKIIKL EYHFPEKFFP KARDLVEKLL VLDATKRLGC EEMEGYGPLK AHPFFETITW ENLHQQTPPK LTAYLPAMSE DDEDCYGNYD NLLSQFGFMQ VSSSSSSHSL STVETSLPQR SGSNIEQYIH DLDTNSFELD LQFSEDEKRL LLEKQAGGNP WHQFVENNLI LKMGPVDKRK GLFARRRQLL LTEGPHLYYV DPVNKVLKGE IPWSQELRPE AKNFKTFFVH TPNRTYYLMD PSGNAHKWCR KIQEVWRQQY QSNPDAAVQ **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make**

Product Details

	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:	PDPK1
Alternative Name:	Pdpk1 (PDPK1 Products)
Background:	3-phosphoinositide-dependent protein kinase 1 (mPDK1) (EC 2.7.11.1),FUNCTION: Serine/threonine kinase which acts as a master kinase, phosphorylating and activating a subgroup of the AGC family of protein kinases. Its targets include: protein kinase B (PKB/AKT1, PKB/AKT2, PKB/AKT3), p70 ribosomal protein S6 kinase (RPS6KB1), p90 ribosomal protein S6 kinase (RPS6KA1, RPS6KA2 and RPS6KA3), cyclic AMP-dependent protein kinase (PRKACA), protein kinase C (PRKCD and PRKCZ), serum and glucocorticoid-inducible kinase (SGK1, SGK2 and SGK3), p21-activated kinase-1 (PAK1), protein kinase PKN (PKN1 and PKN2). Plays a central role in the transduction of signals from insulin by providing the activating phosphorylation to PKB/AKT1, thus propagating the signal to downstream targets controlling cell proliferation and survival, as well as glucose and amino acid uptake and storage. Negatively regulates the TGF-beta-induced signaling by: modulating the association of SMAD3 and SMAD7 with TGF-beta receptor, phosphorylating SMAD2, SMAD3, SMAD4 and SMAD7, preventing the

Target Details

	nuclear translocation of SMAD3 and SMAD4 and the translocation of SMAD7 from the nucleus to the cytoplasm in response to TGF-beta. Activates PPARG transcriptional activity and promotes adipocyte differentiation. Activates the NF-kappa-B pathway via phosphorylation of IKKB. The tyrosine phosphorylated form is crucial for the regulation of focal adhesions by angiotensin II. Controls proliferation, survival, and growth of developing pancreatic cells. Participates in the regulation of Ca(2+) entry and Ca(2+)-activated K(+) channels of mast cells. Essential for the motility of vascular endothelial cells (ECs) and is involved in the regulation of their chemotaxis. Plays a critical role in cardiac homeostasis by serving as a dual effector for cell survival and beta-adrenergic response. Plays an important role during thymocyte development by regulating the expression of key nutrient receptors on the surface of pre-T cells and mediating Notch-induced cell growth and proliferative responses. Provides negative feedback inhibition to toll-like receptor-mediated NF-kappa-B activation in macrophages. {ECO:0000269|PubMed:10792047, ECO:0000269|PubMed:16150867, ECO:0000269|PubMed:17371830, ECO:0000269|PubMed:17599070, ECO:0000269|PubMed:19429709, ECO:0000269|PubMed:19635472, ECO:0000269|PubMed:20584979, ECO:0000269|PubMed:21063107}.
Molecular Weight:	63.8 kDa
UniProt:	Q9Z2A0
Pathways:	PI3K-Akt Signaling, TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Cell-Cell Junction Organization, Regulation of Cell Size, Skeletal Muscle Fiber Development, CXCR4-mediated Signaling Events, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals

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

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months