Datasheet for ABIN7563850

PLD6 Protein (AA 1-221) (His tag)

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Overview

Quantity:	1 mg
Target:	PLD6
Protein Characteristics:	AA 1-221
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PLD6 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Pld6 Protein expressed in mammalien cells.
Sequence:	MGRSSWRLVF AAGAGLALAL EALPWLMRWL LAGRRPRREV LFFPSQVTCT EALLQAPGLP PGPSGCPCSL PHSESSLSRL LRALLAARSS LELCLFAFSS PQLGRAVQLL HQRGVRVRVI TDCDYMALNG SQIGLLRKAG IQVRHDQDLG YMHHKFAIVD KKVLITGSLN WTTQAIQNNR ENVLIMEDTE YVRLFLEEFE RIWEEFDPTK YSFFPQKHRG H **Sequence without tag. The proposed Purification-Tag is based on experiences 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

Product Details

	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:	PLD6
Alternative Name:	Pld6 (PLD6 Products)
Background:	Mitochondrial cardiolipin hydrolase (EC 3.1.4.-) (Choline phosphatase 6) (Mitochondrial phospholipase) (MitoPLD) (Phosphatidylcholine-hydrolyzing phospholipase D6) (Phospholipase D6) (PLD6) (Protein zucchini homolog) (mZuc),FUNCTION: Presents phospholipase and nuclease activities, depending on the different physiological conditions. Interaction with Mitoguardin (MIGA1 or MIGA2) affects the dimer conformation, facilitating the lipase activity over the nuclease activity. Plays a key role in mitochondrial fusion and fission via its phospholipase activity. In its phospholipase role, it uses the mitochondrial lipid cardiolipin as substrate to generate phosphatidate (PA or 1,2-diacyl-sn-glycero-3-phosphate), a second messenger signaling lipid. Production of PA facilitates Mitofusin-mediated fusion, whereas the cleavage of PA by the Lipin family of phosphatases produces diacylgycerol (DAG) which promotes mitochondrial fission. Both Lipin and DAG regulate mitochondrial dynamics and membrane fusion/fission, important processes for adapting mitochondrial metabolism to changes in cell physiology. Mitochondrial fusion enables cells to cope with the increased nucleotide demand during DNA synthesis (By similarity). Mitochondrial function and dynamics are closely associated with biological processes such as cell growth, proliferation, and differentiation (PubMed:21397848). Mediator of MYC activity, promotes mitochondrial fusion and activates AMPK which in turn inhibits YAP/TAZ, thereby inducing cell growth and

Target Details

	proliferation (PubMed:26678338). The endonuclease activity plays a critical role in PIWI-interacting RNA (piRNA) biogenesis during spermatogenesis (PubMed:21397847, PubMed:21397848). Implicated in spermatogenesis and sperm fertility in testicular germ cells, its single strand-specific nuclease activity is critical for the biogenesis/maturation of PIWI-interacting RNA (piRNA) (PubMed:21397847, PubMed:23064230, PubMed:23064227). MOV10L1 selectively binds to piRNA precursors and funnels them to the endonuclease that catalyzes the first cleavage step of piRNA processing to generate piRNA intermediate fragments that are subsequently loaded to Piwi proteins (PubMed:25762440). Cleaves either DNA or RNA substrates with similar affinity, producing a 5' phosphate end, in this way it participates in the processing of primary piRNA transcripts. piRNAs provide essential protection against the activity of mobile genetic elements. piRNA-mediated transposon silencing is thus critical for maintaining genome stability, in particular in germline cells when transposons are mobilized as a consequence of wide-spread genomic demethylation (PubMed:23064230, PubMed:23064227). PA may act as signaling molecule in the recognition/transport of the precursor RNAs of primary piRNAs (PubMed:21397847). Interacts with tesmin in testes, suggesting a role in spermatogenesis via association with its interacting partner (PubMed:33783608). {ECO:0000250|UniProtKB:Q8N2A8, ECO:0000269|PubMed:21397847, ECO:0000269|PubMed:21397848, ECO:0000269|PubMed:23064227, ECO:0000269|PubMed:23064230, ECO:0000269|PubMed:25762440, ECO:0000269|PubMed:26678338, ECO:0000269|PubMed:33783608}.
Molecular Weight:	25.0 kDa
UniProt:	Q5SWZ9
Pathways:	Ribonucleoprotein Complex Subunit Organization

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