Datasheet for ABIN7554204

ITPK1 Protein (AA 1-414) (His tag)

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Overview

Quantity:	1 mg
Target:	ITPK1
Protein Characteristics:	AA 1-414
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ITPK1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat ITPK1 Protein expressed in mammalien cells.
Sequence:	MQTFLKGKRV GYWLSEKKIK KLNFQAFAEL CRKRGMEVVQ LNLSRPIEEQ GPLDVIIHKL TDVILEADQN DSQSLELVHR FQEYIDAHPE TIVLDPLPAI RTLLDRSKSY ELIRKIEAYM EDDRICSPPF MELTSLCGDD TMRLLEKNGL TFPFICKTRV AHGTNSHEMA IVFNQEGLNA IQPPCVVQNF INHNAVLYKV FVVGESYTVV QRPSLKNFSA GTSDRESIFF NSHNVSKPES SSVLTELDKI EGVFERPSDE VIRELSRALR QALGVSLFGI DIIINNQTGQ HAVIDINAFP GYEGVSEFFT DLLNHIATVL QGQSTAMAAT GDVALLRHSK LLAEPAGGLV GERTCSASPG CCGSMMGQDA PWKAEADAGG TAKLPHQRLG CNAGVSPSFQ QHCVASLATK ASSQ **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:

Product Details

- 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:	ITPK1
Alternative Name:	ITPK1 (ITPK1 Products)
Background:	Inositol-tetrakisphosphate 1-kinase (EC 2.7.1.134) (Inositol 1,3,4-trisphosphate 5/6-kinase) (Inositol-triphosphate 5/6-kinase) (Ins(1,3,4)P(3) 5/6-kinase) (EC 2.7.1.159),FUNCTION: Kinase that can phosphorylate various inositol polyphosphate such as Ins(3,4,5,6)P4 or Ins(1,3,4)P3 (PubMed:11042108, PubMed:8662638). Phosphorylates Ins(3,4,5,6)P4 at position 1 to form Ins(1,3,4,5,6)P5 (PubMed:11042108). This reaction is thought to have regulatory importance, since Ins(3,4,5,6)P4 is an inhibitor of plasma membrane Ca(2+)-activated Cl(-) channels, while Ins(1,3,4,5,6)P5 is not. Also phosphorylates Ins(1,3,4)P3 on O-5 and O-6 to form Ins(1,3,4,6)P4, an essential molecule in the hexakisphosphate (InsP6) pathway (PubMed:11042108, PubMed:8662638). Also acts as an inositol polyphosphate phosphatase that dephosphorylates Ins(1,3,4,5)P4 and Ins(1,3,4,6)P4 to Ins(1,3,4)P3, and Ins(1,3,4,5,6)P5 to Ins(3,4,5,6)P4 (PubMed:17616525, PubMed:11909533). May also act as an isomerase that interconverts the inositol tetrakisphosphate isomers Ins(1,3,4,5)P4 and Ins(1,3,4,6)P4 in the presence of ADP and magnesium (PubMed:11909533). Probably acts as the rate-limiting enzyme of the InsP6 pathway. Modifies TNF-alpha-induced apoptosis by interfering with the activation of

Target Details

	TNFRSF1A-associated death domain (PubMed:11909533, PubMed:12925536, PubMed:17616525). Plays an important role in MLKL-mediated necroptosis. Produces highly phosphorylated inositol phosphates such as inositolhexakisphosphate (InsP6) which bind to MLKL mediating the release of an N-terminal auto-inhibitory region leading to its activation. Essential for activated phospho-MLKL to oligomerize and localize to the cell membrane during necroptosis (PubMed:17616525). {ECO:0000269|PubMed:11042108, ECO:0000269|PubMed:11909533, ECO:0000269|PubMed:12925536, ECO:0000269|PubMed:17616525, ECO:0000269|PubMed:8662638}.
Molecular Weight:	45.6 kDa
UniProt:	Q13572

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

