Datasheet for ABIN7556043

WIPI1 Protein (AA 1-446) (His tag)

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Overview

Quantity:	1 mg
Target:	WIPI1
Protein Characteristics:	AA 1-446
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This WIPI1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant WIPI1 Protein expressed in mammalian cells.
Sequence:	MEAEAADAPP GGVESALSCF SFNQDCTSLA TGTKAGYKLF SLSSVEQLDQ VHGSNEIPDV YIVERLFSSS LVVVVSHTKP RQMNVYHFKK GTEICNYSYS SNILSIRLNR QRLLVCLEES IYIHNIKDMK LLKTLLDIPA NPTGLCALSI NHSNSYLAYP GSLTSGEIVL YDGNSLKTVC TIAAHEGTLA AITFNASGSK LASASEKGTV IRVFSVPDGQ KLYEFRRGMK RYVTISSLVF SMDSQFLCAS SNTETVHIFK LEQVTNSRPE EPSTWSGYMG KMFMAATNYL PTQVSDMMHQ DRAFATARLN FSGQRNICTL STIQKLPRLL VASSSGHLYM YNLDPQDGGE CVLIKTHSLL GSGTTEENKE NDLRPSLPQS YAATVARPSA SSASTVPGYS EDGGALRGEV IPEHEFATGP VCLDDENEFP PIILCRGNQK GKTKQS **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Product Details

Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian 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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	WIPI1
Alternative Name:	WIPI1 (WIPI1 Products)
Background:	WD repeat domain phosphoinositide-interacting protein 1 (WIPI-1) (Atg18 protein homolog) (WD40 repeat protein interacting with phosphoinositides of 49 kDa) (WIPI 49 kDa),FUNCTION: Component of the autophagy machinery that controls the major intracellular degradation process by which cytoplasmic materials are packaged into autophagosomes and delivered to lysosomes for degradation (PubMed:15602573, PubMed:20114074, PubMed:20484055, PubMed:20639694, PubMed:23088497, PubMed:28561066, PubMed:31271352). Plays an important role in starvation- and calcium-mediated autophagy, as well as in mitophagy (PubMed:28561066). Functions downstream of the ULK1 and PI3-kinases that produce phosphatidylinositol 3-phosphate (PtdIns3P) on membranes of the endoplasmic reticulum once activated (PubMed:28561066). Binds phosphatidylinositol 3-phosphate (PtdIns3P), and maybe other phosphoinositides including PtdIns3,5P2 and PtdIns5P, and is recruited to phagophore assembly sites at the endoplasmic reticulum membranes (PubMed:28561066, PubMed:31271352, PubMed:33499712). There, it assists WIPI2 in the recruitment of ATG12-

Target Details

	ATG5-ATG16L1, a complex that directly controls the elongation of the nascent autophagosomal membrane (PubMed:28561066). Together with WDR45/WIPI4, promotes ATG2 (ATG2A or ATG2B)-mediated lipid transfer by enhancing ATG2-association with phosphatidylinositol 3-monophosphate (PI3P)-containing membranes (PubMed:31271352). Involved in xenophagy of Staphylococcus aureus (PubMed:22829830). Invading S.aureus cells become entrapped in autophagosome-like WIPI1 positive vesicles targeted for lysosomal degradation (PubMed:22829830). Also plays a distinct role in controlling the transcription of melanogenic enzymes and melanosome maturation, a process that is distinct from starvation-induced autophagy (PubMed:21317285). May also regulate the trafficking of proteins involved in the mannose-6-phosphate receptor (MPR) recycling pathway (PubMed:15020712). {ECO:0000269|PubMed:15020712, ECO:0000269|PubMed:15602573, ECO:0000269|PubMed:20114074, ECO:0000269|PubMed:20484055, ECO:0000269|PubMed:20639694, ECO:0000269|PubMed:21317285, ECO:0000269|PubMed:22829830, ECO:0000269|PubMed:23088497, ECO:0000269|PubMed:28561066, ECO:0000269|PubMed:31271352, ECO:0000269|PubMed:33499712}.
Molecular Weight:	48.7 kDa
UniProt:	Q5MNZ9
Pathways:	Nuclear Hormone Receptor Binding, ER-Nucleus Signaling

Application Details

Application Notes:	We expect the protein to work for functional studies. 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

