Datasheet for ABIN7552387

ARL8B Protein (AA 1-186) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	ARL8B
Protein Characteristics:	AA 1-186
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ARL8B protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant ARL8B Protein expressed in mammalian cells.
Sequence:	MLALISRLLD WFRSLFWKEE MELTLVGLQY SGKTTFVNVI ASGQFSEDMI PTVGFNMRKV TKGNVTIKIW DIGGQPRFRS MWERYCRGVN AIVYMIDAAD REKIEASRNE LHNLLDKPQL QGIPVLVLGN KRDLPNALDE KQLIEKMNLS AIQDREICCY SISCKEKDNI DITLQWLIQH SKSRRS **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.
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

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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	ARL8B
Alternative Name:	ARL8B (ARL8B Products)
Background:	ADP-ribosylation factor-like protein 8B (EC 3.6.5.2) (ADP-ribosylation factor-like protein 10C) (Novel small G protein indispensable for equal chromosome segregation 1),FUNCTION: Small GTPase which cycles between active GTP-bound and inactive GDP-bound states (PubMed:15331635, PubMed:16537643). In its active state, binds to a variety of effector proteins playing a key role in the regulation of lysosomal positioning which is important for nutrient sensing, natural killer cell-mediated cytotoxicity and antigen presentation. Along with its effectors, orchestrates lysosomal transport and fusion (PubMed:16650381, PubMed:16537643, PubMed:28325809, PubMed:25898167, PubMed:27808481). Localizes specifically to lysosomal membranes and mediates anterograde lysosomal motility by recruiting PLEKHM2, which in turn recruits the motor protein kinesin-1 on lysosomes. Required for lysosomal and cytolytic granule exocytosis (PubMed:22172677, PubMed:29592961, PubMed:24088571). Critical factor involved in NK cell-mediated cytotoxicity. Drives the polarization of cytolytic granules and microtubule-organizing centers (MTOCs) toward the immune synapse between effector NK lymphocytes and target cells (PubMed:24088571). In neurons, mediates the anterograde axonal long-range transport of presynaptic lysosome-related vesicles required for presynaptic biogenesis and synaptic function (By similarity). Also acts as a regulator of endosome to lysosome trafficking pathways of special significance for host defense (PubMed:21802320). Regulates cargo

Target Details

	trafficking to lysosomes by binding to PLEKHM1 and recruiting the HOPS subunit VPS41, resulting in functional assembly of the HOPS complex on lysosomal membranes (PubMed:16537643, PubMed:25908847). Plays an important role in cargo delivery to lysosomes for antigen presentation and microbial killing. Directs the intersection of CD1d with lipid antigens in lysosomes, and plays a role in intersecting phagosomes with lysosomes to generate phagolysosomes that kill microbes (PubMed:25908847, PubMed:21802320). Involved in the process of MHC II presentation. Regulates the delivery of antigens to lysosomes and the formation of MHC II-peptide complexes through the recruitment of the HOPS complex to lysosomes allowing the fusion of late endosomes to lysosomes (By similarity). May play a role in chromosome segregation (PubMed:15331635). {ECO:0000250|UniProtKB:Q9CQW2, ECO:0000269|PubMed:15331635, ECO:0000269|PubMed:16537643, ECO:0000269|PubMed:16650381, ECO:0000269|PubMed:21802320, ECO:0000269|PubMed:22172677, ECO:0000269|PubMed:24088571, ECO:0000269|PubMed:25898167, ECO:0000269|PubMed:25908847, ECO:0000269|PubMed:27808481, ECO:0000269|PubMed:28325809, ECO:0000269|PubMed:29592961}., FUNCTION: (Microbial infection) During Mycobacterium tuberculosis (Mtb) infection, is required for plasma membrane repair by controlling the exocytosis of lysosomes in macrophages. ARL8B secretion pathway is crucial to control the type of cell death of the M. tuberculosis-infected macrophages, distinguishing avirulent from virulent Mtb induced necrotic cell death. {ECO:0000269|PubMed:29592961}., FUNCTION: (Microbial infection) During infection, coronaviruses such as SARS-CoV-2 and the chaperone HSPA5/GRP78 are probably co-released through ARL8B-dependent lysosomal exocytic pathway for unconventional egress. {ECO:0000269|PubMed:33157038}.
Molecular Weight:	21.5 kDa
UniProt:	Q9NVJ2

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

Handling

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