

Datasheet for ABIN3096367 VPS18 Protein (AA 2-973) (His tag)



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	VPS18
Protein Characteristics:	AA 2-973
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This VPS18 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	<p>ASILDEYENS LSRSAVLQPG CPSVGIPHSY YVNAQLEKEV PFTKQRIDF TPSEIRITSLV</p> <p>VSSNQLCMSL GKDTLLRIDL GKANEPNHVE LGRKDDAKVH KMFLDHTGSH LLIALSSTEV</p> <p>LYVNRNGQKV RPLARWKGQL VESVGWNKAL GTESSTGPIL VGTAQGHIFE AELSASEGGL</p> <p>FGPAPDLYFR PLYVLNEEGG PAPVCSLEAE RGPDGRSFVI ATTRQLRFQF IGRAAEGAEA</p> <p>QGFSGLFAAY TDHPPPFREF PSNLGYSELA FYTPKLRSAP RAFAWMMGDG VLYGALDCGR</p> <p>PDSLLSEERV WEYPEGVGPG ASPPLAIVLT QHFHLLLLAD RVEAVCTLTG QVVLRDHFLE</p> <p>KFGPLKHMVK DSSTGQLWAY TERAVERYHV QREARDVWRT YLDMNRFDLA KEYCRERPDC</p> <p>LDTVLAREAD FCFRQRRYLE SARCYALTQS YFEEIALKFL EARQEEALAE FLQRKLASLK</p> <p>PAERTQATLL TTWLTLYLS RLGAHQGDPE ALTLYRETKE CFRTFLSSPR HKEWLFASRA</p> <p>SIHELLASHG DTEHVMYFAV IMQDYERVVA YHCQHEAYEE ALAVLARHRD PQLFYKFSP</p> <p>LIRHIPRQLV DAWIEMGSRL DARQLIPALV NYSQGGEVQQ VSQAIRYMEF CVNVLGETEQ</p> <p>AIHNYLLSLY ARGRPDSLLA YLEQAGASPH RVHYDLKYAL RLCAEHGHHR ACVHVYKVL</p>
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LYEEAVDLAL QVDVDLAKQC ADLPEEDEEL RKKLWLKIAR HVVQEEEDVQ TAMACLASCP
LLKIEDVLPF FPDFVTIDHF KEAICSSLKA YNHHIQELQR EMEEATASQA RIRRDQLQLR
GRYGTVEPQD KCATCDFPLL NRPFYLFLOG HMFHADCLLQ AVRPGLPAYK QARLEELQRK
LGAAPPPAKG SARAKEAEGG AATAGPSREQ LKADLDELVA AECVYCGELM IRSIDRPFID
PQRYEEEQLS WL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human VPS18 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	VPS18
Alternative Name:	VPS18 (VPS18 Products)
Background:	<p>Plays a role in vesicle-mediated protein trafficking to lysosomal compartments including the endocytic membrane transport and autophagic pathways. Believed to act as a core component of the putative HOPS and CORVET endosomal tethering complexes which are proposed to be involved in the Rab5-to-Rab7 endosome conversion probably implicating MON1A/B, and via binding SNAREs and SNARE complexes to mediate tethering and docking events during SNARE-mediated membrane fusion. The HOPS complex is proposed to be recruited to Rab7 on the late endosomal membrane and to regulate late endocytic, phagocytic and autophagic traffic towards lysosomes. The CORVET complex is proposed to function as a Rab5 effector to mediate early endosome fusion probably in specific endosome subpopulations (PubMed:11382755, PubMed:23351085, PubMed:24554770, PubMed:25783203). Required for fusion of endosomes and autophagosomes with lysosomes (PubMed:25783203). Involved in dendrite development of Pukinje cells (By similarity). {ECO:0000250 UniProtKB:Q8R307, ECO:0000269 PubMed:25783203, ECO:0000305 PubMed:11382755, ECO:0000305 PubMed:23351085, ECO:0000305 PubMed:25783203}.</p>
Molecular Weight:	111.0 kDa Including tag.
UniProt:	Q9P253
Pathways:	Asymmetric Protein Localization

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.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to

Application Details

increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process