

Datasheet for ABIN3096297

VPS41 Protein (AA 1-854) (Strep Tag)**1** Image[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	VPS41
Protein Characteristics:	AA 1-854
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This VPS41 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MAEAEQETG SLEESTDESE EESEEEPKL KYERLSNGVT EILQKDAASC MTVHDKFLAL GTHYGKVYLL DVQGNITQKF DVSPVKINQI SLDESGEHMG VCSDEGKVQV FGLYSGEEFH ETFDCPIKII AVHPHFVRSS CKQFVTGGKK LLLFERSWMN RWKSAVLHEG EGNIRSVKWR GHLIAWANNM GVKIFDIISK QRITNVPRDD ISLRPDMYPC SLCWKDNVTL IIGWGTSVKV CSVKERHASE MRDLPSRYVE IVSQFETEFY ISGLAPLCDQ LVVLSYVKEI SEKTEREYCA RPRLDIIQPL SETCEEISSD ALTVRGFQEN ECRDYHLEYS EGESLFYIVS PRDVVAKER DQDDHIDWLL EKKKYEEALM AAEISQKNIK RHKILDIGLA YINHLVERGD YDIAARKCQK ILGKNAALWE YEVYKFKEIG QLKAISPYLP RGDPVLKPLI YEMILHEFLE SDYEGFATLI REWPGDLYNN SVIVQAVRDH LKKDSQNKTL LKTLAELYTY DKNYGNALAI YLTLRHKDVF QLIHKHNLFS SIKDKIVLLM DFDSEKAVDM LLDNEDKISI KKVVEELED R PELQHVYLHK LFKRDHHKGQ RYHEKQISLY AEYDRPNLLP FLRDSTHCPL EKALEICQQR NFVEETVYLL SRMGNSRSAL KMIMEELHDV DKAIEFAKEQ DDGELWEDLI LYSIDKPPFI TGLLNNIGTH
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VDPILLIHRI KEGMEIPNLR DSLVKILQDY NLQILLREGC KKILVADSLS LLKKMHRTQM
KGVLVDEENI CESCLSPILP SDAAKPFSVV VFHCRHMFHK ECLPMPMSNS AAQFCNICSA
KNRGP GSAIL EMKK

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	VPS41
Alternative Name:	VPS41 (VPS41 Products)
Background:	Vacuolar protein sorting-associated protein 41 homolog (S53),FUNCTION: Plays a role in vesicle-mediated protein trafficking to lysosomal compartments including the endocytic membrane transport and autophagic pathways. Believed to act in part as a core component of the putative HOPS endosomal tethering complex is 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 (PubMed:23351085, PubMed:33851776). Involved in homotypic vesicle fusions between late endosomes and in heterotypic fusions between late endosomes and lysosomes implicated in degradation of endocytosed cargo (PubMed:9159129, PubMed:23167963, PubMed:25445562, PubMed:25908847). Required for fusion of autophagosomes with lysosomes (PubMed:25783203). Links the HOPS complex to endosomal Rab7 via its association with RILP and to lysosomal membranes via its association with ARL8B, suggesting that these interactions may bring the compartments to close proximity for fusion (PubMed:25445562, PubMed:25908847, PubMed:21802320). Involved in the direct trans-Golgi network to late endosomes transport of lysosomal membrane proteins independently of HOPS (PubMed:23322049). Involved in sorting to the regulated secretory pathway presumably implicating the AP-3 adapter complex (By similarity). May play a role in HOPS-independent function in the regulated secretory pathway (PubMed:24210660).

Target Details

{ECO:0000250|UniProtKB:D3ZVH6, ECO:0000269|PubMed:21802320, ECO:0000269|PubMed:23167963, ECO:0000269|PubMed:23322049, ECO:0000269|PubMed:25445562, ECO:0000269|PubMed:25783203, ECO:0000269|PubMed:25908847, ECO:0000269|PubMed:33851776, ECO:0000269|PubMed:9159129, ECO:0000305|PubMed:23167963, ECO:0000305|PubMed:23351085, ECO:0000305|PubMed:24210660, ECO:0000305|PubMed:25445562}.

Molecular Weight: 98.6 kDa

UniProt: [P49754](#)

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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

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Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Handling

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