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Datasheet for ABIN3096311
VPS16 Protein (AA 1-839) (Strep Tag)

Overview

Quantity:	1 mg
Target:	VPS16
Protein Characteristics:	AA 1-839
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This VPS16 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MDCYTANWNP LGDSAFYRKY ELYSMDWDLK EELRDCLVAA APYGGPIALL RNPWRKEKAA
SVRPVLDIYS ASGMPLASLL WKS GPV VSLG WSAEEELLCV QEDGAVLVYG LHGDFRRHFS
MGNEVLQNRV LDARIFHTEF GSGVAILTGA HRFTLSANVG DLKLRMPEV PGLQSAPSCW
TVLCQDRVAH ILLAVGPDLY LLDHAACSAV TPPGLAPGVS SFLQMAVSFT YRHLALFTDT
GYIWMGTASL KEKLCEFNCN IRAPPKQMVW CSRPRSKERA VVVAWERRLM VVGDAPESIQ
FVLDEDSYLV PELDGVRIFS RSTHEFLHEV PAASEEIFKI ASMAPGALLL EAQKEYEKES
QKADEYLREI QELGQLTQAV QQCIEAAGHE HQPDMQKSLL RAASFGKCFL DRFPDPSFVH
MCQDLRVLNA VRDYHIGIPL TYSQYKQLTI QVLLDRLVLR RLYPLAIQIC EYLRLPEVQG
VSRILAHWAC YKVQQKDVSD EDVARAINQK LGDTPGVSY S DIAARAYGCG RTELAIKLL E
YEPRSGEQVP LLLKMKRSKL ALSKAIESGD TDLVFTVLLH LKNELNRGDF FMTLRNQPMA
LSLYRQFCKH QELETLDKDY NQDDNHQELG SFHIRASYAA EERIEGRVAA LQTAADAFYK
AKNEFAAKAT EDQMRLRLQ RRLEDELGGQ FLDLSLHDTV TTLILGGH NK RAEQLARDFR

IPDKRLWWLK LTALADLEDW EEEKFSKSK KSPIGYLPFV EICMKQH NKY EAKKYASRVG
PEQKVKALLL VGDVAQAADV AIEHRNEAEL SLVLSHCTGA TDGATADKI Q RARAQAQKK

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®): <ol style="list-style-type: none">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)

Target Details

Target:	VPS16
Alternative Name:	VPS16 (VPS16 Products)
Background:	<p>Vacuolar protein sorting-associated protein 16 homolog (hVPS16),FUNCTION: 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:25266290, PubMed:25783203). Required for recruitment of VPS33A to the HOPS complex (PubMed:23901104). Required for fusion of endosomes and autophagosomes with lysosomes, the function is dependent on its association with VPS33A but not VPS33B (PubMed:25783203). The function in autophagosome-lysosome fusion implicates STX17 but not UVRAG (PubMed:24554770). {ECO:0000269 PubMed:23901104, ECO:0000269 PubMed:24554770, ECO:0000269 PubMed:25783203, ECO:0000305 PubMed:11382755, ECO:0000305 PubMed:23351085, ECO:0000305 PubMed:25266290, ECO:0000305 PubMed:25783203}.</p>
Molecular Weight:	94.7 kDa
UniProt:	Q9H269

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.

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!

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

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)
