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VPS4A Protein (AA 1-437) (Strep Tag)



Overview

Quantity:	1 mg
Target:	VPS4A
Protein Characteristics:	AA 1-437
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This VPS4A protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:

MTTSTLQKAI DLVTKATEED KAKNYEEALR LYQHAVEYFL HAIKYEAHSD KAKESIRAKC VQYLDRAEKL KDYLRSKEKH GKKPVKENQS EGKGSDSDSE GDNPEKKKLQ EQLMGAVVME KPNIRWNDVA GLEGAKEALK EAVILPIKFP HLFTGKRTPW RGILLFGPPG TGKSYLAKAV ATEANNSTFF SVSSSDLMSK WLGESEKLVK NLFELARQHK PSIIFIDEVD SLCGSRNENE SEAARRIKTE FLVQMQGVGN NNDGTLVLGA TNIPWVLDSA IRRRFEKRIY IPLPEEAARA QMFRLHLGST PHNLTDANIH ELARKTEGYS GADISIIVRD SLMQPVRKVQ SATHFKKVCG PSRTNPSMMI DDLLTPCSPG DPGAMEMTWM DVPGDKLLEP VVCMSDMLRS LATTRPTVNA DDLLKVKKFS EDFGQES

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 posttranslational 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.

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.
- 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:	>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:	VPS4A
Alternative Name:	VPS4A (VPS4A Products)
Background:	Vacuolar protein sorting-associated protein 4A (EC 3.6.4.6) (Protein SKD2) (VPS4-1)
	(hVPS4),FUNCTION: Involved in late steps of the endosomal multivesicular bodies (MVB)
	pathway. Recognizes membrane-associated ESCRT-III assemblies and catalyzes their
	disassembly, possibly in combination with membrane fission. Redistributes the ESCRT-III
	components to the cytoplasm for further rounds of MVB sorting. MVBs contain intraluminal
	vesicles (ILVs) that are generated by invagination and scission from the limiting membrane of
	the endosome and mostly are delivered to lysosomes enabling degradation of membrane
	proteins, such as stimulated growth factor receptors, lysosomal enzymes and lipids. It is
	required for proper accomplishment of various processes including the regulation of endosome
	size, primary cilium organization, mitotic spindle organization, chromosome segregation, and
	nuclear envelope sealing and spindle disassembly during anaphase (PubMed:33186545).
	Involved in cytokinesis: retained at the midbody by ZFYVE19/ANCHR and CHMP4C until
	abscission checkpoint signaling is terminated at late cytokinesis. It is then released following
	dephosphorylation of CHMP4C, leading to abscission (PubMed:24814515). VPS4A/B are
	required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:22660413). Critical
	for normal erythroblast cytokinesis and correct erythropoiesis (PubMed:33186543).
	{ECO:0000269 PubMed:11563910, ECO:0000269 PubMed:15075231,
	ECO:0000269 PubMed:22660413, ECO:0000269 PubMed:24814515,
	ECO:0000269 PubMed:33186543, ECO:0000269 PubMed:33186545}., FUNCTION: (Microbial
	infection) In conjunction with the ESCRT machinery also appears to function in topologically
	equivalent membrane fission events, such as the terminal stages of cytokinesis and enveloped
	virus budding (HIV-1 and other lentiviruses). {ECO:0000269 PubMed:11595185}.

Molecular Weight:	48.9 kDa
UniProt:	Q9UN37

Pathways: Microtubule Dynamics, CXCR4-mediated Signaling Events

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)