

Datasheet for ABIN3094042

## Myosin VI Protein (MYO6) (AA 1-1294) (Strep Tag)



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### 1 Image

### Overview

Quantity:	1 mg
Target:	Myosin VI (MYO6)
Protein Characteristics:	AA 1-1294
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Myosin VI protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Sequence:	<p>MEDGKPVWAP HPTDGFQMGN IVDIGPDSL T IEPLNQKGT FLALINQVFP AEEDSKKDVE                  DNCSLMYLN E ATLLHNIKVR YSKDRIYTYV ANILIAVNPY FDIPKIYSSE AIKSYQGKSL                  GTRPPHVF AI ADKAFRDMKV LKMSQSIIVS GESGAGKTEN TKFVLRYLTE SYGTGQDIDD                  RIVEANPLLE AFGNAKTVRN NNSSRFGKFV EIHFNEKSSV VGGFVSHYLL EKSRI CVQ GK                  EERNYHIFYR LCAGASEDIR EKLHLSSPDN FRYLNRGCTR YFANKETDKQ ILQNRKSPEY                  LKAGSMKDPL LDDHGDFIRM CTAMKKIGLD DEEKLDLFRV VAGVLHLGNI DFEEAGSTSG                  GCNLKNKSAQ SLEYCAELLG LDQDDL RVSL TTRVMLTTAG GTKGTVIKVP LKVEQANNAR                  DALAKTVYSH LFDHVVNRVN QCFFPETSSY FIGVLDIAGF EYFEHNSFEQ FCINYCNEKL                  QOFFNERILK EEQELYQKEG LGVNEVHYVD NQDCIDLIEA KLVGILDILD EENRLPQPSD                  QHFTSAVHQK HKDHFRLTIP RSKSLAVHRN IRDDEGFIIR HFAGAVCYET TQFVEKNNDA                  LHMSLES LIC ESRDKFIREL FESSTNNNKD TKQKAGKLSF ISVGNKFKTQ LNLLLDKLR S                  TGASFIRC IK PNLKMTSHHF EGAQILSQLQ CSGMVS VLDL MQGGYPSRAS FHELYNMYKK</p>
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YMPDKLARLD PRLFCKALFK ALGLNENDYK FGLTKVFFRP GKFAEFDQIM KSDPDHLAEL  
VKRVNHWLTCSRWKKVQWCS LSVIKLKNKI KYRAEACIKM QKTIRMWLCK RRHKPRIDGL  
VKVGTLLKRL DKFNEVSVL KDGKPEMNKQ IKNLEISIDT LMAKIKSTMM TQEIQIKEYD  
ALVKSSEELL SALQKKKQQE EEAERLRRIQ EEMEKERKRR EEDEKRRRKE EEERRMKLEM  
EAKRKQEEEE RKKREDDEKR IQAEVEAQLA RQKEEESQQQ AVLEQERRDR ELALRIAQSE  
AELISDEAQA DLALRRSLDS YPVSKNDGTR PKMTPEQMAK EMSEFLSRGP AVLATKAAAG  
TKKYDLSKWK YAELRDTINT SCDIELLAAC REEFHRRLLKV YHAWKSKNKK RNTETEQRAP  
KSVTDYDFAP FLNNSPQQNP AAQIPARQRE IEMNRQQRFF RIPFIRPADQ YKDPQSKKKG  
WWYAHFDGPW IARQMELHPD KPILLVAGK DDMEMCELNL EETGLTRKRG AEILPRQFEE  
IWERCGGIQY LQNAIESRQA RPTYATAMLQ SLLK

**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.**

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### 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 -

## Product Details

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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.

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Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALICE®): <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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

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Target:	Myosin VI (MYO6)
Alternative Name:	MYO6 ( <a href="#">MYO6 Products</a> )
Background:	Unconventional myosin-VI (Unconventional myosin-6),FUNCTION: Myosins are actin-based motor molecules with ATPase activity (By similarity). Unconventional myosins serve in intracellular movements (By similarity). Myosin 6 is a reverse-direction motor protein that moves towards the minus-end of actin filaments (PubMed:10519557). Has slow rate of actin-activated ADP release due to weak ATP binding (By similarity). Functions in a variety of intracellular processes such as vesicular membrane trafficking and cell migration (By similarity). Required for the structural integrity of the Golgi apparatus via the p53-dependent pro-survival pathway (PubMed:16507995). Appears to be involved in a very early step of clathrin-mediated endocytosis in polarized epithelial cells (PubMed:11447109). Together with TOM1, mediates delivery of endocytic cargo to autophagosomes thereby promoting autophagosome maturation and driving fusion with lysosomes (PubMed:23023224). Links

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## Target Details

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TOM1 with autophagy receptors, such as TAX1BP1, CALCOCO2/NDP52 and OPTN (PubMed:31371777). May act as a regulator of F-actin dynamics (By similarity). As part of the DISP complex, may regulate the association of septins with actin and thereby regulate the actin cytoskeleton (PubMed:29467281). May play a role in transporting DAB2 from the plasma membrane to specific cellular targets (By similarity). May play a role in the extension and network organization of neurites (By similarity). Required for structural integrity of inner ear hair cells (By similarity). Modulates RNA polymerase II-dependent transcription (PubMed:16949370). {ECO:0000250|UniProtKB:Q29122, ECO:0000250|UniProtKB:Q64331, ECO:0000269|PubMed:10519557, ECO:0000269|PubMed:11447109, ECO:0000269|PubMed:16507995, ECO:0000269|PubMed:16949370, ECO:0000269|PubMed:23023224, ECO:0000269|PubMed:29467281, ECO:0000269|PubMed:31371777}.

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Molecular Weight: 149.7 kDa

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UniProt: [Q9UM54](#)

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Pathways: [Sensory Perception of Sound](#), [Dicarboxylic Acid Transport](#), [Asymmetric Protein Localization](#)

## Application Details

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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!

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Restrictions: For Research Use only

## Handling

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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)

## Images

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