Datasheet for ABIN3094041

MYO3A Protein (AA 1-1616) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	MYO3A
Protein Characteristics:	AA 1-1616
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This MYO3A protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MFPLIGKTII FDNFPDPSDT WEITETIGKG TYGKVFKVLN KKNGQKAAVK ILDPIHDIDE EIEAEYNILK ALSDHPNVVR FYGIYFKKDK VNGDKLWLVL ELCSGGSVTD LVKGFLKRGE RMSEPLIAYI LHEALMGLQH LHNNKTIHRD VKGNNILLTT EGGVKLVDFG VSAQLTSTRH RRNTSVGTPF WMAPEVIACE QQLDTTYDAR CDTWSLGITA IELGDGDPPL ADLHPMRALF KIPRNPPPKL RQPELWSAEF NDFISKCLTK DYEKRPTVSE LLQHKFITQI EGKDVMLQKQ LTEFIGIHQC MGGTEKARRE RIHTKKGNFN RPLISNLKDV DDLATLEILD ENTVSEQLEK CYSRDQIYVY VGDILIALNP FQSLGLYSTK HSKLYIGSKR TASPPHIFAM ADLGYQSMIT YNSDQCIVIS GESGAGKTEN AHLLVQQLTV LGKANNRTLQ EKILQVNNLV EAFGNACTII NDNSSRFGKY LEMKFTSSGA VVGAQISEYL LEKSRVIHQA IGEKNFHIFY YIYAGLAEKK KLAHYKLPEN KPPRYLQNDH LRTVQDIMNN SFYKSQYELI EQCFKVIGFT MEQLGSIYSI LAAILNVGNI EFSSVATEHQ IDKSHISNHT ALENCASLLC IRADELQEAL TSHCVVTRGE TIIRPNTVEK ATDVRDAMAK TLYGRLFSWI VNCINSLLKH DSSPSGNGDE LSIGILDIFG

FENFKKNSFE QLCINIANEQ IQYYYNQHVF AWEQNEYLNE DVDARVIEYE DNWPLLDMFL QKPMGLLSLL DEESRFPKAT DQTLVEKFEG NLKSQYFWRP KRMELSFGIH HYAGKVLYNA SGFLAKNRDT LPTDIVLLLR SSDNSVIRQL VNHPLTKTGN LPHSKTKNVI NYQMRTSEKL INLAKGDTGE ATRHARETTN MKTQTVASYF RYSLMDLLSK MVVGQPHFVR CIKPNSERQA RKYDKEKVLL QLRYTGILET ARIRRLGFSH RILFANFIKR YYLLCYKSSE EPRMSPDTCA TILEKAGLDN WALGKTKVFL KYYHVEQLNL MRKEAIDKLI LIQACVRAFL CSRRYQKIQE KRKESAIIIQ SAARGHLVRK QRKEIVDMKN TAVTTIQTSD QEFDYKKNFE NTRESFVKKQ AENAISANER FISAPNNKGS VSVVKTSTFK PEEETTNAVE SNNRVYQTPK KMNNVYEEEV KQEFYLVGPE VSPKQKSVKD LEENSNLRKV EKEEAMIQSY YQRYTEERNC EESKAAYLER KAISERPSYP VPWLAENETS FKKTLEPTLS QRSIYQNANS MEKEKKTSVV TQRAPICSQE EGRGRLRHET VKERQVEPVT QAQEEEDKAA VFIQSKYRGY KRRQQLRKDK MSSFKHQRIV TTPTEVARNT HNLYSYPTKH EEINNIKKKD NKDSKATSER EACGLAIFSK QISKLSEEYF ILQKKLNEMI LSQQLKSLYL GVSHHKPINR RVSSQQCLSG VCKGEEPKIL RPPRRPRKPK TLNNPEDSTY YYLLHKSIQE EKRRPRKDSQ GKLLDLEDFY YKEFLPSRSG PKEHSPSLRE RRPQQELQNQ CIKANERCWA AESPEKEEER EPAANPYDFR RLLRKTSQRR RLVQQS

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-

Product Details

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.

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:	MYO3A
Alternative Name:	MYO3A (MYO3A Products)
Background:	Myosin-IIIa (EC 2.7.11.1),FUNCTION: Probable actin-based motor with a protein kinase activity. Probably plays a role in vision and hearing (PubMed:12032315). Required for normal cochlear hair bundle development and hearing. Plays an important role in the early steps of cochlear hair bundle morphogenesis. Influences the number and lengths of stereocilia to be produced and limits the growth of microvilli within the forming auditory hair bundles thereby contributing to the architecture of the hair bundle, including its staircase pattern. Involved in the elongation of actin in stereocilia tips by transporting the actin regulatory factor ESPN to the plus ends of actin

Target Details

	filaments (By similarity). {ECO:0000250|UniProtKB:Q8K3H5, ECO:0000269|PubMed:12032315}.
Molecular Weight:	186.2 kDa
UniProt:	Q8NEV4
Pathways:	Sensory Perception of Sound, Phototransduction

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)

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

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