Datasheet for ABIN3095767

SYNPO2 Protein (AA 1-1093) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	SYNPO2
Protein Characteristics:	AA 1-1093
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SYNPO2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MGTGDFICIS MTGGAPWGFR LQGGKEQKQP LQVAKIRNQS KASGSGLCEG DEVVSINGNP CADLTYPEVI KLMESITDSL QMLIKRPSSG ISEALISENE NKNLEHLTHG GYVESTTLQI RPATKTQCTE FFLAPVKTEV PLAENQRSGP DCAGSLKEET GPSYQRAPQM PDSQRGRVAE ELILREKVEA VQPGPVVELQ LSLSQERHKG ASGPLVALPG AEKSKSPDPD PNLSHDRIVH INSIPTNEKA DPFLRSSKII QISSGRELRV IQESEAGDAG LPRVEVILDC SDRQKTEGCR LQAGKECVDS PVEGGQSEAP PSLVSFAVSS EGTEQGEDPR SEKDHSRPHK HRARHARLRR SESLSEKQVK EAKSKCKSIA LLLTDAPNPN SKGVLMFKKR RRRARKYTLV SYGTGELERE ADEEEEGDKE DTCEVAFLGA SESEVDEELL SDVDDNTQVV NFDWDSGLVD IEKKLNRGDK MEMLPDTTGK GALMFAKRRE RMDQITAQKE EDKVGGTPSR EQDAAQTDGL RTTTSYQRKE EESVRTQSSV SKSYIEVSHG LGHVPQQNGF SGTSETANIQ RMVPMNRTAK PFPGSVNQPA TPFSPTRNMT SPIADFPAPP PYSAVTPPPD AFSRGVSSPI AGPAQPPPWP QPAPWSQPAF YDSSERIASR DERISVPAKR TGILQEAKRR STTKPMFTFK EPKVSPNPEL LSLLQNSEGK

RGTGAGGDSG PEEDYLSLGA EACNFMQSSS AKQKTPPPVA PKPAVKSSSS QPVTPVSPVW SPGVAPTQPP AFPTSNPSKG TVVSSIKIAQ PSYPPARPAS TLNVAGPFKG PQAAVASQNY TPKPTVSTPT VNAVQPGAVG PSNELPGMSG RGAQLFAKRQ SRMEKYVVDS DTVQAHAARA QSPTPSLPAS WKYSSNVRAP PPVAYNPIHS PSYPLAALKS QPSAAQPSKM GKKKGKKPLN ALDVMKHQPY QLNASLFTFQ PPDAKDGLPQ KSSVKVNSAL AMKQALPPRP VNAASPTNVQ ASSVYSVPAY TSPPSFFAEA SSPVSASPVP VGIPTSPKQE SASSSYFVAP RPKFSAKKSG VTIQVWKPSV VEE

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:

Product Details

- 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)

Target Details

Target:	SYNPO2
Alternative Name:	SYNPO2 (SYNPO2 Products)
Background:	Synaptopodin-2 (Genethonin-2) (Myopodin),FUNCTION: Has an actin-binding and actin-bundling activity. Can induce the formation of F-actin networks in an isoform-specific manner (PubMed:24005909, PubMed:23225103). At the sarcomeric Z lines is proposed to act as adapter protein that links nascent myofibers to the sarcolemma via ZYX and may play a role in early assembly and stabilization of the Z lines. Involved in autophagosome formation. May play a role in chaperone-assisted selective autophagy (CASA) involved in Z lines maintenance in striated muscle under mechanical tension, may link the client-processing CASA chaperone machinery to a membrane-tethering and fusion complex providing autophagosome membranes (By similarity). Involved in regulation of cell migration (PubMed:22915763, PubMed:25883213). May be a tumor suppressor (PubMed:16885336). {ECO:0000250|UniProtKB:D4A702, ECO:0000250|UniProtKB:Q91YE8, ECO:0000269|PubMed:22915763, ECO:0000269|PubMed:23225103, ECO:0000269|PubMed:24005909, ECO:0000269|PubMed:25883213, ECO:0000305|PubMed:16885336, ECO:0000305|PubMed:20554076}., FUNCTION: [Isoform 1]: Involved in regulation of cell migration. Can induce formation of thick, irregular actin bundles in the cell body. {ECO:0000269|PubMed:22915763, ECO:0000269|PubMed:24005909}.,

Target Details

	FUNCTION: [Isoform 2]: Involved in regulation of cell migration. Can induce long, well-organized actin bundles frequently orientated in parallel along the long axis of the cell showing characteristics of contractile ventral stress fibers. {ECO:0000269|PubMed:22915763, ECO:0000269|PubMed:24005909}., FUNCTION: [Isoform 3]: Involved in regulation of cell migration. Can induce an amorphous actin meshwork throughout the cell body containing a mixture of long and short, randomly organized thick and thin actin bundles. {ECO:0000269|PubMed:22915763, ECO:0000269|PubMed:24005909}., FUNCTION: [Isoform 4]: Can induce long, well-organized actin bundles frequently orientated in parallel along the long axis of the cell showing characteristics of contractile ventral stress fibers. {ECO:0000269|PubMed:24005909}., FUNCTION: [Isoform 5]: Involved in regulation of cell migration in part dependent on the Rho-ROCK cascade, can promote formation of nascent focal adhesions, actin bundles at the leading cell edge and lamellipodia (PubMed:22915763, PubMed:25883213). Can induce formation of thick, irregular actin bundles in the cell body, the induced actin network is associated with enhanced cell migration in vitro. {ECO:0000269|PubMed:22915763, ECO:0000269|PubMed:24005909, ECO:0000269|PubMed:25883213}.
Molecular Weight:	117.5 kDa
UniProt:	Q9UMS6

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)

