Datasheet for ABIN3096410

XPO4 Protein (AA 1-1151) (Strep Tag)

Go to Product page

1 Image

Overview

Quantity:	1 mg
Target:	XPO4
Protein Characteristics:	AA 1-1151
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This XPO4 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MMAAALGPPE VIAQLENAAK VLMAPPSMVN NEQRQHAEHI FLSFRKSKSP FAVCKHILET SKVDYVLFQA ATAIMEAVVR EWILLEKGSI ESLRTFLLTY VLQRPNLQKY VREQILLAVA VIVKRGSLDK SIDCKSIFHE VSQLISSGNP TVQTLACSIL TALLSEFSSS SKTSNIGLSM EFHGNCKRVF QEEDLRQIFM LTVEVLQEFS RRENLNAQMS SVFQRYLALA NQVLSWNFLP PNLGRHYIAM FESSQNVLLK PTESWRETLL DSRVMELFFT VHRKIREDSD MAQDSLQCLA QLASLHGPIF PDEGSQVDYL AHFIEGLLNT INGIEIEDSE AVGISSIISN LITVFPRNVL TAIPSELFSS FVNCLTHLTC SFGRSAALEE VLDKDDMVYM EAYDKLLESW LTLVQDDKHF HKGFFTQHAV QVFNSYIQCH LAAPDGTRNL TANGVASREE EEISELQEDD RDQFSDQLAS VGMLGRIAAE HCIPLLTSLL EERVTRLHGQ LQRHQQQLLA SPGSSTVDNK MLDDLYEDIH WLILVTGYLL ADDTQGETPL IPPEIMEYSI KHSSEVDINT TLQILGSPGE KASSIPGYNR TDSVIRLLSA ILRVSEVESR AIRADLTHLL SPQMGKDIVW FLKRWAKTYL LVDEKLYDQI SLPFSTAFGA DTEGSQWIIG YLLQKVISNL SVWSSEQDLA NDTVQLLVTL VERRERANLV IQCENWWNLA

KQFASRSPPL NFLSSPVQRT LMKALVLGGF AHMDTETKQQ YWTEVLQPLQ QRFLRVINQE NFQQMCQQEE VKQEITATLE ALCGIAEATQ IDNVAILFNF LMDFLTNCIG LMEVYKNTPE TVNLIIEVFV EVAHKQICYL GESKAMNLYE ACLTLLQVYS KNNLGRQRID VTAEEEQYQD LLLIMELLTN LLSKEFIDFS DTDEVFRGHE PGQAANRSVS AADVVLYGVN LILPLMSQDL LKFPTLCNQY YKLITFICEI FPEKIPQLPE DLFKSLMYSL ELGMTSMSSE VCQLCLEALT PLAEQCAKAQ ETDSPLFLAT RHFLKLVFDM LVLQKHNTEM TTAAGEAFYT LVCLHQAEYS ELVETLLSSQ QDPVIYQRLA DAFNKLTASS TPPTLDRKQK MAFLKSLEEF MANVGGLLCV K

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)
Grade:	Crystallography grade

Target Details

Target:	XPO4
Alternative Name:	XPO4 (XPO4 Products)
Background:	Exportin-4 (Exp4),FUNCTION: Mediates the nuclear export of proteins (cargos), such as EIF5A, SMAD3 and isoform M2 of PKM (PKM2) (PubMed:10944119, PubMed:16449645, PubMed:26787900). In the nucleus binds cooperatively to its cargo and to the GTPase Ran in its active GTP-bound form. Docking of this trimeric complex to the nuclear pore complex (NPC) is mediated through binding to nucleoporins (PubMed:10944119, PubMed:16449645). Upon transit of a nuclear export complex into the cytoplasm, disassembling of the complex and hydrolysis of Ran-GTP to Ran-GDP (induced by RANBP1 and RANGAP1, respectively) cause release of the cargo from the export receptor (PubMed:10944119, PubMed:16449645). XPO4 then return to the nuclear compartment and mediate another round of transport (PubMed:10944119, PubMed:16449645). The directionality of nuclear export is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus (PubMed:10944119, PubMed:16449645). Catalyzes the nuclear export of hypusinated EIF5A, a small cytoplasmic protein that enters nucleus and accumulates within nucleolus if not exported back by XPO4 (PubMed:10944119). Specifically mediates nuclear export of isoform M2 of PKM (PKM2) following PKM2 deacetylation by SIRT6

Target Details

	(PubMed:26787900). Also mediates the nuclear import of SOX transcription factors SRY and SOX2 (By similarity). {ECO:0000250|UniProtKB:Q9ESJ0, ECO:0000269|PubMed:10944119, ECO:0000269|PubMed:16449645, ECO:0000269|PubMed:26787900}.
Molecular Weight:	130.1 kDa
UniProt:	Q9C0E2

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)

 Copyright antibodies-online. All rights reserved.

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

 Copyright antibodies-online. All rights reserved.