Datasheet for ABIN3093101

Importin 4 Protein (IPO4) (AA 1-1081) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	Importin 4 (IPO4)
Protein Characteristics:	AA 1-1081
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Importin 4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MESAGLEQLL RELLLPDTER IRRATEQLQI VLRAPAALPA LCDLLASAAD PQIRQFAAVL TRRRLNTRWR RLAAEQRESL KSLILTALQR ETEHCVSLSL AQLSATIFRK EGLEAWPQLL QLLQHSTHSP HSPEREMGLL LLSVVVTSRP EAFQPHHREL LRLLNETLGE VGSPGLLFYS LRTLTTMAPY LSTEDVPLAR MLVPKLIMAM QTLIPIDEAK ACEALEALDE LLESEVPVIT PYLSEVLTFC LEVARNVALG NAIRIRILCC LTFLVKVKSK ALLKNRLLPP LLHTLFPIVA AEPPPGQLDP EDQDSEEEEL EIELMGETPK HFAVQVVDML ALHLPPEKLC PQLMPMLEEA LRSESPYQRK AGLLVLAVLS DGAGDHIRQR LLPPLLQIVC KGLEDPSQVV RNAALFALGQ FSENLQPHIS SYSREVMPLL LAYLKSVPLG HTHHLAKACY ALENFVENLG PKVQPYLPEL MECMLQLLRN PSSPRAKELA VSALGAIATA AQASLLPYFP AIMEHLREFL LTGREDLQPV QIQSLETLGV LARAVGEPMR PLAEECCQLG LGLCDQVDDP DLRRCTYSLF AALSGLMGEG LAPHLEQITT LMLLSLRSTE GIVPQYDGSS SFLLFDDESD GEEEEELMDE DVEEEDDSEI SGYSVENAFF DEKEDTCAAV GEISVNTSVA FLPYMESVFE EVFKLLECPH LNVRKAAHEA

LGQFCCALHK ACQSCPSEPN TAALQAALAR VVPSYMQAVN RERERQVVMA VLEALTGVLR SCGTLTLKPP GRLAELCGVL KAVLQRKTAC QDTDEEEEEE DDDQAEYDAM LLEHAGEAIP ALAAAAGGDS FAPFFAGFLP LLVCKTKQGC TVAEKSFAVG TLAETIQGLG AASAQFVSRL LPVLLSTAQE ADPEVRSNAI FGMGVLAEHG GHPAQEHFPK LLGLLFPLLA RERHDRVRDN ICGALARLLM ASPTRKPEPQ VLAALLHALP LKEDLEEWVT IGRLFSFLYQ SSPDQVIDVA PELLRICSLI LADNKIPPDT KAALLLLLTF LAKQHTDSFQ AALGSLPVDK AQELQAVLGL S

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:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.

Product Details

	• 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:	Importin 4 (IPO4)
Alternative Name:	IPO4 (IPO4 Products)
Background:	Importin-4 (Imp4) (Importin-4b) (Imp4b) (Ran-binding protein 4) (RanBP4),FUNCTION: Nuclear transport receptor that mediates nuclear import of proteins, such as histones, RPS3A, TNP2 and VDR (PubMed:11823430, PubMed:16207705, PubMed:17682055, PubMed:21454524). Serves as receptor for nuclear localization signals (NLS) in cargo substrates (PubMed:11823430, PubMed:16207705). Is thought to mediate docking of the importin/substrate complex to the nuclear pore complex (NPC) through binding to nucleoporin and the complex is subsequently translocated through the pore by an energy requiring, Ran-dependent mechanism (PubMed:11823430, PubMed:16207705). At the nucleoplasmic side of the NPC, Ran binds to the importin, the importin/substrate complex dissociates and importin is re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran (PubMed:11823430). The directionality of nuclear import is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus (PubMed:11823430). Mediates the nuclear import of the histone H3-H4 dimer when in complex with ASF1 (ASF1A or ASF1B) (PubMed:21454524, PubMed:29408485). Mediates the ligand-independent nuclear import of vitamin D receptor (VDR) (PubMed:16207705). In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a non-classical

Target Details

	NLS (PubMed:12610148). {ECO:0000269|PubMed:11823430, ECO:0000269|PubMed:12610148, ECO:0000269|PubMed:16207705, ECO:0000269|PubMed:17682055, ECO:0000269|PubMed:21454524, ECO:0000269|PubMed:29408485}.
Molecular Weight:	118.7 kDa
UniProt:	Q8TEX9
Pathways:	Protein targeting to Nucleus

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)

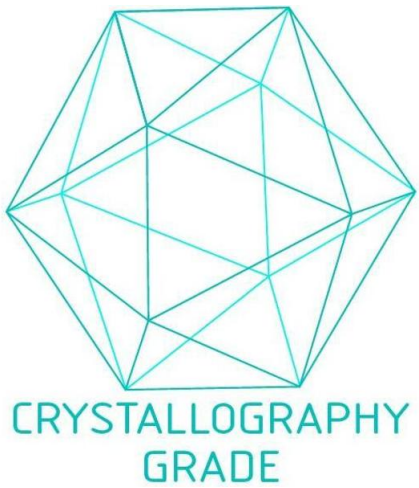

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process