Datasheet for ABIN3136761

Importin 4 Protein (IPO4) (AA 1-1082) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	Importin 4 (IPO4)
Protein Characteristics:	AA 1-1082
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
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

Brand:	AliCE®
Sequence:	MEPAGLEQIL KELLLPDTER IRRATEQLQT ILRDPAALPA LFDLLATATD SQIRQFAAVL TRRRLNNRWR RLAPEQRESL KSLVLTALQK ETVHSVSVSL AQLSATIFRK EGLQGWPQFM NLLQHSTHSS HSPEKEVGLL LLSVVVSSQP EAFHAHQHEL LQLLNETLSD VSFPGVLFYS LRTLTAIARY VRPDDVSLAR MLVPKVVTAL RTLIPLDEVK ACEALEALDE MLETELPIIN PHLSEVLTFC LEVAKNVALG EPLRVRVLCC LTFLVKVKSK ALLKNRLVPP LLHALFPLMA AEPPMGQLDP EDQDSDDDDL EIGLMGETPK HFAVQVVDML ALHLPPEKLC PHVMPMLEEA LRSEDPYQRK AGFLVLAVLS DGAGDHIRQR LLYPLLQIVC KGLDDPSQIV RNAALFALGQ FSENLQPHIS SYSEEVMPLL LSYLKSVPMG NTHHLAKACY ALENFVENLG PKVQPYLPEL MECMLQPLKN PSKARTKELA VSAIGAIATA AQDSLLPYFP TIMDLLREFL LTGHEDFHLV QIQSLETLGV LARALGESMK PLAEECCQLG LGLCIHIDDP DVRRCTYSLF AALSGLMGEG LGPYLPQITT LMLLSLRSTE GIVPQYDGIS SFLLFDDDSE AEEEEELMDE DMEEEGDDSE

ISGYSVENAF FDEKEDTCTA LGEISMNTCV AFLPFMDATF DEVYKLLECP HMNVRKSAYE ALGQFCCALH KASQRSSSDP SSSPVLQTSL ARVMPAYMQA VKVERERPVV MAVLESLTGV LRTCGSLALQ PPGRLSELCN VLKAVLQKKT ACQDAEEDDD EDDDQAEYDA MLLEHAGEAI PVLAATAGGH AFAPFFATFL PLLLCKTKQS CTVAEKSFAV GTLAESIQGL GTASAQFVSR LFPVLLNNAR EADPEVRSNA IFGLGVLAEH GGCPAQDHFP KLLGLLLPLL ARERHDRVRD NICGALARVL MASPVGKTEP QVLATLLRAL PLKEDMEEWL TIGHLFSFLH QNNPEQVVDV ASELLRICSL ILPDNRIPPD TKAALLLLLT FLAKQHTDSF HTALGSLPND KAQELQAMMG LT

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	Importin 4 (IPO4)
Alternative Name:	Ipo4 (IPO4 Products)
Background:	Importin-4 (Imp4) (Importin-4a) (Imp4a) (Ran-binding protein 4) (RanBP4),FUNCTION: Nuclear transport receptor that mediates nuclear import of proteins, such as histones, RPS3A, TNP2 and VDR. Serves as receptor for nuclear localization signals (NLS) in cargo substrates. 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. 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. 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. Mediates the nuclear import of the histone H3-H4 dimer when in complex with ASF1 (ASF1A or ASF1B). Mediates the ligand-independent nuclear import of vitamin D receptor (VDR). {ECO:0000250|UniProtKB:Q8TEX9}.
Molecular Weight:	119.3 kDa
UniProt:	Q8VI75
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.

Application Details

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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months