

Datasheet for ABIN3136198

Importin 5 Protein (IPO5) (AA 2-1097) (His tag)



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Overview

Quantity:	1 mg
Target:	Importin 5 (IPO5)
Protein Characteristics:	AA 2-1097
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Importin 5 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	AAAAAEQQQF YLLLGNNLLSP DNVVRKQAE TYENIPGRSK ITFLLQAIRN TTAAEEARQM AAVLLRRLLS SAFDEVYPAL PSDVQTAIKS ELLMIIQMET QSSMRKKICD IAAELARNLI DEDGNNQWPE GLKFLFDSVS SQNMGLREAA LHIFWNFPPI FGNQQQHYLD VIKRMLVQCM QDQEHPSIRT LSARATAAFI LANEHNVALF KHFDLLPGF LQAVNDSCYQ NDDSVLKSLV EIADTVPKYL RPHLEATLQL SLKLCGDTNL NNMQRQLALE VIVTLSETAA AMLRKHTSLI AQTIPQMLAM MVDLEEDWD ANADELEDD FDSNAVAGES ALDRMACGLG GKLVLPMIKE HIMQMLQNPD WKYRHAGLMA LSAIGEGCHQ QMEGILNEIV NFVLLFLQDP HPRVRYAACN AVGQMATDFA PGFQKKFHEK VIAALLQTME DQGNQVRQAH AAAALINFTE DCPKSLIPY LDNLVKHLHS IMVLKLQELI QKGTKLVLEQ VVTSIASVAD TAEKFVPPY DLFMPSLKHI VENAVQKELR LLRGKTIECI SLIGLAVGKE KFMQDASDVM QLLLKTQTDF NDMEDDDPQI SYMISAWARM CKILGKEFQQ YLPVVMGPLM KTASIKPEVA LLDTQDMENM SDDDGWFEVN LGDQQSFGIK TAGLEEKSTA CQMLVCYAKE LKEGFVEYTE QVVKLMVPLL KFYFHDGVRV
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AAAESMPLLL ECARVRGPEY LTQMWHFMCD ALIKAIGTEP DSDVLSEIMH SFAKCIEMVG
DGCLNNEHFE ELGGILKAKL EEHFKNQELR QVKRQDEDYD EQVEESLQDE DDNDVYILTK
VSDILHSIFS SYKEKVLPWF EQLLPLIVNL ICPQRPWPDR QWGLCIFDDI VEHCSASF
YAEYFISPML QYVCDNSPEV RQAAAYGLGV MAQFGGDNYR PFCTDALPLL VRVIQAPEAK
TKENVNATEN CISA VGKIMK FKPD CVNVEE VLPHWLSWLP LHEDKEEAVQ TFSYLCDLIE
SNHPIVLGPN NTNLPKIFSI IAEGEMHEAI KHEDPCAKRL ANVVRQVQTS GGLWTECIAQ
LSPEQQAIIQ ELLNSA

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Ipo5 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step

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through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Importin 5 (IPO5)
Alternative Name:	Ipo5 (IPO5 Products)
Background:	Functions in nuclear protein import as nuclear transport receptor. 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 ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A. In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones. {ECO:0000269 PubMed:11493596, ECO:0000269 PubMed:17143267}.
Molecular Weight:	124.4 kDa Including tag.
UniProt:	Q8BKC5
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:	Protein has not been tested for activity yet. In cases in which it is highly likely that the

Application Details

recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)