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Datasheet for ABIN3093212

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

Overview

Quantity:	1 mg
Target:	Importin 5 (IPO5)
Protein Characteristics:	AA 2-1097
Origin:	Human
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 YLLLGNULLSP DNVVRKQAE E TYENIPGQSK ITFLLQAIRN TTAEEEARQM
AAVLLRRLLS SAFDEVYPAL PSDVQTAIKS ELLMIIQMET QSSMRKKVCD IAAELARNLI
DEDGNNQWPE GLKFLFDSVS SQNVGLREAA LHIFWNFPFI FGNQQQHYLD VIKRMLVQCM
QDQEHP SIRT LSARATAAFI LANEHNVALF KH FADLLPGF LQAVNDSCYQ NDDSVLKSLV
EIADTVPKYL RPHLEATLQL SLKLCGDTSL NNMQRQLALE VIVTLSETAA AMLRKHTNIV
AQTIPQMLAM MVDLEEDW ANADELEDD FDSNAVAGES ALDRMACGLG GKLVLPMIKE
HIMQMLQNPD WKYRHAGLMA LSAIGEGCHQ QMEGILNEIV NFVLLFLQDP HPRVRYAACN
AVGQMATDFA PGFQKKFHEK VIAALLQTME DQGNQRVQAH AAAALINFTE DCPKSLIPY
LDNLVKHLHS IMVLKLQELI QKGTKLVLEQ VVTSIASVAD TAEKFVPPY DLFMP SLKHI
VENAVQKELR LLRGKTIECI SLIGLAVGKE KFMQDASDVM QLLLKTQTD F NDMEDDDPQI
SYMISAWARM CKILGKEFQQ YLPVVMGPLM KTASIKPEVA LLDTQDMENM SDDDGWEFVN
LGDQQSFGIK TAGLEEKSTA CQMLVCYAKE LKEGFVEYTE QVVKLMVPLL KFYFHDGVRV

AAAESMPLLL ECARVRGPEY LTQMWHFMCD ALIKAIGTEP DSDVLSEIMH SFAKCEIVMG
DGCLNNEHFE ELGGILKAKL EEHFKNQELR QVKRQDEDYD EQVEESLQDE DDNDVYILTK
VSDILHSIFS SYKEKVLVWF EQLLPLIVNL ICPHRPWPDR QWGLCIFDDV IEHCSPASFK
YAEYFLRPML QYVCDNSPEV RQAAAYGLGV MAQYGGDNYR PFCTEALPLL VRIQSADSK
TKENVNATEN CISA VGKIMK FKPDVCNVEE VLPHWLSWLP LHEDKEEAVQ TFNYLCDLIE
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.
- Human 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 (By similarity). 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. In case of HIV-1 infection, binds and mediates the nuclear import of HIV-1 Rev. {ECO:0000250, ECO:0000269|PubMed:9687515}.

Molecular Weight: 124.5 kDa Including tag.

UniProt: [O00410](#)

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: In cases in which it is highly likely that the 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)
