

Datasheet for ABIN3096411  
**XPO5 Protein (AA 2-1204) (His tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	XPO5
Protein Characteristics:	AA 2-1204
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This XPO5 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence:	AMDQVNALCE QLVKAVTMM DPNSTQRYRL EALKFCEEFK EKCPICVPCG LRLAEKTQVA IVRHFGQLQIL EHVVKFRWNG MSRLKVVYLK NSVMELIANG TLNILEEENH IKDALSRIVV EMIKREWPHQ WPDMLIELDT LSKQGETQTE LVMFILLRLA EDVVTFTQTL PQRRRDIQQT LTQNMERIFS FLLNTLQENV NKYQQVKTD T SQESKAQANC RVGVAALNTL AGYIDWVSMS HITAENCKLL EILCLLLNEQ ELQLGAAECL LIAVSRKGKL EDRKPLMVLF GDVAMHYILS AAQTADGGGL VEKHYVFLKR LCQVLCALGN QLCALLGADS DVETPSNFGK YLESFLAFTT HPSQFLRSST QMTWGALFRH EILSRDPLLL AIIPKYLRAS MTNLVKMGFP SKTDSPSCEY SRFDFDSDDED FNAFFNSSRA QQGEVMRLAC RLDPKTSFQM AGEWLKYQLS TFLDAGSVNS CSAVGTGEGS LCSVFSPSFV QWEAMTLFLE SVITQMFRTL NREEIPVNDG IELLQMVLFNF DTKDPLILSC VLTNVLSALFP FVTYRPEFLP QVFSKLFSSV TFETVEESKA PRTRAVRNVR RHACSSIIKM CRDYPQLVLP NFDMLYNHVK QLLSNELLLT QMEKCALMEA LVLISNQFKN YERQKVFLLE LMAPVASIWL SQDMHRVLS DDAFIAYVGT DQKSCDPGLE DPCGLNRARM
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SFCVYSILGV VKRTCWPTDL EEAKAGGFVV GYTSSGNPIF RNPCTEQILK LLDNLLALIR  
THNTLYAPEM LAKMAEPFTK ALDMLDAEKS AILGLPQPLL ELNDSPVFKT VLERMQRFFS  
TLYENCFHIL GKAGPSMQQD FYTVEDLATQ LLSSAFVNLN NIPDYRLRPM LRVFVKPLVL  
FCPPEHYEAL VSPILGPLFT YLHMRLSQKW QVINQRSLLC GEDEAADENP ESQEMLEEQL  
VRMLTREVM D LITVCCVSKK GADHSSAPPA DGDDEEMMAT EVTPSAMAEL TDLGKCLMKH  
EDVCTALLIT AFNSLAWKDT LSCQRTTSQL CWPLLKQVLS GTLLADAVTW LFTSVLKGLQ  
MHGQHDGCMA SLVHLAFQIY EALRPRYLEI RAVMEIQPEI QKDSLQDFDC KLLNPSLQKV  
ADKRRKDQFK RLIAGCIGKP LGEQFRKEVH IKNLPSLFKK TKPMLETEVL DNDGGGLATI FEP

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human XPO5 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.

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### 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.

## Product Details

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: >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: XPO5

Alternative Name: XPO5 ([XPO5 Products](#))

Background: Mediates the nuclear export of proteins bearing a double-stranded RNA binding domain (dsRBD) and double-stranded RNAs (cargos). XPO5 in the nucleus binds cooperatively to the RNA and to the GTPase Ran in its active GTP-bound form. Proteins containing dsRBDs can associate with this trimeric complex through the RNA. Docking of this complex to the nuclear pore complex (NPC) is mediated through binding to nucleoporins. Upon transit of a nuclear export complex into the cytoplasm, hydrolysis of Ran-GTP to Ran-GDP (induced by RANBP1 and RANGAP1, respectively) cause disassembly of the complex and release of the cargo from the export receptor. XPO5 then returns to the nuclear compartment by diffusion through the nuclear pore complex, to mediate another round of transport. 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. Overexpression may in some circumstances enhance RNA-mediated gene silencing (RNAi). Mediates nuclear export of isoform 5 of ADAR/ADAR1 in a RanGTP-dependent manner., Mediates the nuclear export of micro-RNA precursors, which form short hairpins. Also mediates the nuclear export of synthetic short hairpin RNAs used for RNA interference, and adenovirus VA1 dsRNA. In some circumstances can also mediate the nuclear export of deacylated and aminoacylated tRNAs. Specifically recognizes dsRNAs that lack a 5'-overhang in a sequence-independent manner, have only a short 3'-overhang, and that have a double-stranded length of at least 15 base-pairs. Binding is dependent on Ran-GTP.

Molecular Weight: 137.1 kDa Including tag.

UniProt: [Q9HAV4](#)

## Target Details

Pathways: [Regulatory RNA 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:	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)

## Images



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