

Datasheet for ABIN3094730

PNPT1 Protein (AA 46-783) (His tag)



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1 Image

Overview

| | |
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| Quantity: | 1 mg |
| Target: | PNPT1 |
| Protein Characteristics: | AA 46-783 |
| Origin: | Human |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This PNPT1 protein is labelled with His tag. |
| Application: | SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys) |

Product Details

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| Sequence: | <p>AVAVDLGNRK LEISSGKLAR FADGSAVVQS GDTAVMVTAV SKTKPSPSQF MPLVVDYRQK</p> <p>AAAAGRIPTN YLRREIGTSD KEILTSRIID RSIRPLFPAG YFYDQVLCN LLAVDGVNEP</p> <p>DVLAINGASV ALSLSDIPWN GPVGAVRIGI IDGEYVNPT RKEMSSTLN LVVAGAPKSQ</p> <p>IVMLEASAEN ILQQDFCHAI KVGVKYTQQI IQGIQQLVKE TGVTKRTPQK LFTPSPEIVK</p> <p>YTHKLAMERL YAVFTDYEHD KVS RDEAVNK IRLDTEEQLK EKFP EADPYE IIESFN VVAK</p> <p>EVFRSIVLNE YKRC DGRDLT SLRNV SCEVD MFKTLHGSAL FQRGQTQVLC TVTFDSLES G</p> <p>IKSDQVITAI NGIKDKNFML HYEFP PYATN EIGKVTGLNR RELGHGALAE KALYPVIPRD</p> <p>FPFTIRVTSE VLESNGSSSM ASACGGSLAL MDSGVPIS SA VAGVAIGLVT KTDPEKGEIE</p> <p>DYRLTDLIG IEDYNGDMDF KIAGTNKGIT ALQADIKLPG IPIKIVMEAI QQASVAKKEI LQIMNKTISK</p> <p>PRASRKENG P VVETVQVPLS KRAK FVGPGG YNLKKLQAET GVTISQVDEE TFSVFAPTPS</p> <p>AMHEARDFIT EICKDDQEQQ LEFGAVYTAT ITEIRDTGVM VKLYPNMTAV LLHNTQLDQR</p> <p>KIKHPTALGL EVGQEIQVKY FGRDPADGRM RLSRKVLQSP ATT VVRTLND RSSIVMGEPI</p> |
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SQSSSNSQ

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 PNPT1 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 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.

Product Details

Grade: Crystallography grade

Target Details

Target: PNPT1

Alternative Name: PNPT1 ([PNPT1 Products](#))

Background: RNA-binding protein implicated in numerous RNA metabolic processes. Catalyzes the phosphorolysis of single-stranded polyribonucleotides processively in the 3'-to-5' direction. Mitochondrial intermembrane factor with RNA-processing exoribonuclease activity. Component of the mitochondrial degradosome (mtEXO) complex, that degrades 3' overhang double-stranded RNA with a 3'-to-5' directionality in an ATP-dependent manner. Required for correct processing and polyadenylation of mitochondrial mRNAs. Plays a role as a cytoplasmic RNA import factor that mediates the translocation of small RNA components, like the 5S RNA, the RNA subunit of ribonuclease P and the mitochondrial RNA-processing (MRP) RNA, into the mitochondrial matrix. Plays a role in mitochondrial morphogenesis and respiration, regulates the expression of the electron transport chain (ETC) components at the mRNA and protein levels. In the cytoplasm, shows a 3'-to-5' exoribonuclease mediating mRNA degradation activity, degrades c-myc mRNA upon treatment with IFN β /IFN-beta, resulting in a growth arrest in melanoma cells. Regulates the stability of specific mature miRNAs in melanoma cells, specifically and selectively degrades miR-221, preferentially. Plays also a role in RNA cell surveillance by cleaning up oxidized RNAs. Binds to the RNA subunit of ribonuclease P, MRP RNA and miR-221 microRNA. {ECO:0000269|PubMed:12473748, ECO:0000269|PubMed:12721301, ECO:0000269|PubMed:12798676, ECO:0000269|PubMed:16055741, ECO:0000269|PubMed:16410805, ECO:0000269|PubMed:16934922, ECO:0000269|PubMed:18083836, ECO:0000269|PubMed:18083837, ECO:0000269|PubMed:18501193, ECO:0000269|PubMed:19509288, ECO:0000269|PubMed:20547861, ECO:0000269|PubMed:20691904}.

Molecular Weight: 81.8 kDa Including tag.

UniProt: [Q8TCS8](#)

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

Application Details

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| | 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

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| 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