

Datasheet for ABIN3089529

## ATP1A3 Protein (AA 329-762) (His tag)



[Go to Product page](#)

### 1 Image

#### Overview

|                               |                                                                      |
|-------------------------------|----------------------------------------------------------------------|
| Quantity:                     | 1 mg                                                                 |
| Target:                       | ATP1A3                                                               |
| Protein Characteristics:      | AA 329-762                                                           |
| Origin:                       | Human                                                                |
| Source:                       | Insect Cells                                                         |
| Protein Type:                 | Recombinant                                                          |
| Purification tag / Conjugate: | This ATP1A3 protein is labelled with His tag.                        |
| Application:                  | ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS) |

#### Product Details

Sequence: TVTVCLTLTA KRMARKNCLV KNLEAVETLG STSTICSDKT GTLTQNRMTV AHMWFDNQH  
EADTTEDQSG TSFDKSSHTW VALSHIAGLC NRAVFKGGQD NIPVLKRDVA GDASESALLK  
CIELSSGSVK LMRERNKVA EIPFNSTNKY QLSIHETEDP NDNRYLLVMK GAPERILDRC  
STILLQGKEQ PLDEEMKEAF QNAYLELGGL GERVLGFCHY YLPEEQFPKG FAFDCDDVNF  
TTDNLCFVGL MSMIDPPRAA VPDVAVGKCRS AGIKVIMVTG DHPITAKAIA KGVGIIEGN  
ETVEDIAARL NIPVSQVNPR DAKACVIHGT DLKDFTSEQI DEILQNHTEI VFARTSPQQK  
LIIVEGCQRQ GAIVAVTGDG VNDSPALKKA DIGVAMGIAG SDVSKQAADM ILLDDNFASI  
VTGVEEGRLLI FDNL

**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 ATP1A3 Protein (raised in Insect Cells) purified by multi-step, protein-specific

## Product Details

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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: <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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|         |                                                                                  |
|---------|----------------------------------------------------------------------------------|
| Purity: | >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot. |
|---------|----------------------------------------------------------------------------------|

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|            |                  |
|------------|------------------|
| Sterility: | 0.22 µm filtered |
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|------------------|----------------------------|
| Endotoxin Level: | Protein is endotoxin free. |
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|--------|-----------------------|
| Grade: | Crystallography grade |
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## Target Details

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|         |        |
|---------|--------|
| Target: | ATP1A3 |
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|-------------------|--------------------------------------------|
| Alternative Name: | ATP1A3 ( <a href="#">ATP1A3 Products</a> ) |
|-------------------|--------------------------------------------|

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## Target Details

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|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background:       | This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients. |
| Molecular Weight: | 48.1 kDa Including tag.                                                                                                                                                                                                                                                                                                       |
| UniProt:          | <a href="#">P13637</a>                                                                                                                                                                                                                                                                                                        |
| Pathways:         | <a href="#">Thyroid Hormone Synthesis</a> , <a href="#">Proton Transport</a> , <a href="#">Ribonucleoside Biosynthetic Process</a>                                                                                                                                                                                            |

## Application Details

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| 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

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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)                                                             |



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