

Datasheet for ABIN7552374

**ATP2C1 Protein (AA 1-919) (His tag)**[Go to Product page](#)

## Overview

|                               |   |
|-------------------------------|---|
| Quantity:                     | 1 mg  |
| Target:                       | ATP2C1  |
| Protein Characteristics:      | AA 1-919                                      |
| Origin:                       | Human   |
| Source:                       | HEK-293 Cells                                 |
| Protein Type:                 | Recombinant                                   |
| Purification tag / Conjugate: | This ATP2C1 protein is labelled with His tag. |

## Product Details

|           |  |
|-----------|--|
| Purpose:  | Custom-made recombinant ATP2C1 Protein expressed in mammalian cells.   |
| Sequence: | MKVARFQKIP NGENETMIPV LTSKKASELP VSEVASILQA DLQNLNKCE VSHRRAFHW<br>NEFDISEDEP LWKKYISQFK NPLIMLLAS AVISVLMHQF DDAVSITVAI LIVVTVAFVQ<br>EYRSEKSLEE LSKLVPPECH CVREGKLEHT LARDLVPGDT VCLSVGDRVP ADLRLFEAVD<br>LSIDESSLTG ETTPCSKVTA PQPAATNGDL ASRSNIAFMG TLVRCGKAKG VVIGTGENSE<br>FGEVFKMMQA EEAPKTPLQK SMDLLGKQLS FYSFGIIGII MLVGWLLGKD ILEMFTISVS<br>LAVAAIPEGL PIVVTVLAL GVMRMVKKRA IVKKLPIVET LGCCNVICSD KTGTLTKNEM<br>TVTHIFTS DG LHA EVTGVGY NQFGEVVDG DVVHGFYNPA VSRIVEAGCV CNDAVIRNNT<br>LMGKPTGEGAL IALAMKMGDL GLQQDYIRKA EYPFSSEQKW MAVKCVHRTQ QDRPEICFMK<br>GAYEQVIKYC TTYQSKGQTL TLTQQQRDVY QQEKARMGSA GLRVLALASG PELGQLTFLG<br>LVGIIDPPRT GVKEAVTTLI ASGVSIKMIT GDSQETAVAI ASRLGLYSKT SQSVSGEIID<br>AMDVQQLSQI VPKVAVFYRA SPRHKMKIHK SLQKNGSVVA MTGDGVNDAV ALKAADIGVA<br>MGQTGTDVCK EAADMILVDD DFQTIMS AIE EGKGIYNNIK NFVRFQLSTS IAALTLSLA |

## Product Details

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TLMNFPNPLN AMQILWINII MDGPPAQLSG VEPVDKDVIR KPPRNWKDSI LTKNLILKIL  
VSSIIIVCGT LFFVWRELRD NVITPRDTTM TFTCFVFFDM FNALSSRSQT KSVFEIGLCS  
NRMFCYAVLG SIMGQLLVIIY FPPLQKVFQT ELSILDLLF LLGLTSSVCI VAEIIKKVER  
SREKIQKHVS STSSSFLEV **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

**Specificity:** If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

**Characteristics:** Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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 try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

**Purity:** > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

**Grade:** custom-made

## Target Details

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**Target:** ATP2C1

**Alternative Name:** ATP2C1 ([ATP2C1 Products](#))

**Background:** Calcium-transporting ATPase type 2C member 1 (ATPase 2C1) (EC 7.2.2.10) (ATP-dependent Ca(2+) pump PMR1) (Ca(2+)/Mn(2+)-ATPase 2C1) (Secretory pathway Ca(2+)-transporting ATPase type 1) (SPCA1),FUNCTION: ATP-driven pump that supplies the Golgi apparatus with Ca(2+) and Mn(2+) ions, both essential cofactors for processing and trafficking of newly synthesized proteins in the secretory pathway (PubMed:16192278, PubMed:30923126,

## Target Details

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PubMed:21187401, PubMed:12707275, PubMed:20439740). Within a catalytic cycle, acquires Ca(2+) or Mn(2+) ions on the cytoplasmic side of the membrane and delivers them to the luminal side. The transfer of ions across the membrane is coupled to ATP hydrolysis and is associated with a transient phosphorylation that shifts the pump conformation from inward-facing to outward-facing state (PubMed:16192278, PubMed:16332677, PubMed:30923126). Plays a primary role in the maintenance of Ca(2+) homeostasis in the trans-Golgi compartment with a functional impact on Golgi and post-Golgi protein sorting as well as a structural impact on cisternae morphology (PubMed:20439740, PubMed:14632183). Responsible for loading the Golgi stores with Ca(2+) ions in keratinocytes, contributing to keratinocyte differentiation and epidermis integrity (PubMed:14632183, PubMed:10615129, PubMed:20439740). Participates in Ca(2+) and Mn(2+) ions uptake into the Golgi store of hippocampal neurons and regulates protein trafficking required for neural polarity (By similarity). May also play a role in the maintenance of Ca(2+) and Mn(2+) homeostasis and signaling in the cytosol while preventing cytotoxicity (PubMed:21187401). {ECO:0000250|UniProtKB:Q80XR2, ECO:0000269|PubMed:10615129, ECO:0000269|PubMed:12707275, ECO:0000269|PubMed:14632183, ECO:0000269|PubMed:16192278, ECO:0000269|PubMed:16332677, ECO:0000269|PubMed:20439740, ECO:0000269|PubMed:21187401, ECO:0000269|PubMed:30923126}.

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Molecular Weight: 100.6 kDa

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UniProt: [P98194](#)

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Pathways: [Transition Metal Ion Homeostasis](#), [Ribonucleoside Biosynthetic Process](#)

## Application Details

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Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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## Handling

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months