

Datasheet for ABIN3089536

ATP2A2 Protein (AA 314-756) (His tag)[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	ATP2A2
Protein Characteristics:	AA 314-756
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP2A2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence: VITTCLALGT RRMACKNAIV RSLPSVETLG CTSVICSDKT GLTTNQMSV CRMFILDRVE
GDTCSLNEFT ITGSTYAPIG EVHKDDKPVN CHQYDGLVEL ATICALCNDS ALDYNEAKGV
YEKVGAEATET ALTCLVEKMN VFDTELKGLS KIERANACNS VIKQLMKKEF TLEFSRDRKS
MSVYCTPNKP SRTSMSKMFV KGAPEGVIDR CTHIRVGSTK VPMTSGVKQK IMSVIREWGS
GSDTLRCLAL ATHDNPLRRE EMHLEDSANF IKYETNLTFV GCVGMLDPPR IEVASSVKLC
RQAGIRVIMI TGDNKGTAVA ICRRIGIFGQ DEDVTSKAFT GREFDELNPS AQRDACLNAR
CFARVEPSHK SKIVEFLQSF DEITAMTGDG VNDAPALKKA EIGIAMGSGT AVAKTASEMV
LADDNFSTIV AAVEEGRAIY NNM

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 ATP2A2 Protein (raised in Insect Cells) purified by multi-step, protein-specific

Product Details

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

Target:	ATP2A2
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Alternative Name:	ATP2A2 (ATP2A2 Products)
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Target Details

Background:	This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Isoform 2 is involved in the regulation of the contraction/relaxation cycle (PubMed:16402920). Acts as a regulator of TNFSF11-mediated Ca(2+) signaling pathways via its interaction with TMEM64 which is critical for the TNFSF11-induced CREB1 activation and mitochondrial ROS generation necessary for proper osteoclast generation. Association between TMEM64 and SERCA2 in the ER leads to cytosolic Ca (2+) spiking for activation of NFATC1 and production of mitochondrial ROS, thereby triggering Ca (2+) signaling cascades that promote osteoclast differentiation and activation (By similarity). {ECO:0000250 UniProtKB:O55143, ECO:0000269 PubMed:16402920}.
Molecular Weight:	49.3 kDa Including tag.
UniProt:	P16615
Pathways:	Myometrial Relaxation and Contraction , ER-Nucleus Signaling , Ribonucleoside Biosynthetic Process

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)