

Datasheet for ABIN3135608

**ATP2A3 Protein (AA 1-1038) (rho-1D4 tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	ATP2A3
Protein Characteristics:	AA 1-1038
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP2A3 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	MEEAHLSSAA DVLRRFSVTA EGGLSLEQVT DARERYGPNE LPTEEGKSLW ELVVEQFEDL LVRILLAAAL VSFVLAWFEE GEETTTAFVE PLVIMLILVA NAIVGVWQER NAESAIEALK EYEPENGKVI RSDRKGQVRI RARDIVPGDI VEVAVGDKVP ADRLRIEIKS TTLRVDQSIL TGESVSVTKH TDAIPDPRAV NQDKKNMLFS GTNIASGKAL GVAVATGLQT ELGKIRSQMA AVEPERTPLQ RKLDEFGRQL SHAISVICVA VVVINIGHFA DPAHGGSWLR GAVYYFKIAV ALAVAAIPEG LPAVITTCCLA LGTRRMARKN AIVRSLPSVE TLGCTSVICS DKTGTLTTNQ MSVCRMVVA EAEAGTCRLH EFTISGTTYT PEGEVRQGEQ PVRCGQFDGL VELATICALC NDSALDYNEA KGVYEKVGEE TETALTCLVE KMNVFDTDLK GLSRVERAGA CNSVIKQLMR KEFTLEFSRD RKSMSVYCTP TRADPKVQGS KMFVKGAPES VIERCSSVRV GSRTAPLSTT SREHILAKIR DWGSGSDTLR CLALATRDTP PRKEDMHLDD CSRFVQYETD LTFVGCVGML DPPRPEVAAC ITRCSRAGIR VVMITGDNKG TAVAICRRLG IFGDTEDVLG KAYTGREFFD LSPEQQRQAC RTARCFARVE PAHKSRIVEN LQSFNEITAM TGDGVNDAPA LKKAIEIGIAM
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SGGTAVAKSA AEMVLSDDNF ASIVAAVEEG RAIYNNMKQF IRYLISSNVG EVVCIFLTAI  
LGLPEALIPV QLLWVNLVTD GLPATALGFN PPDLIMEKP PRNPREALIS GWLFFRYLAI  
GVYVGLATVA AATWWFLYDT EGPQVTFYQL RNFLKCEDN PLFAGIDCKV FESRFPTTMA  
LSVLVTIEMC NALNSVSENQ SLLRMPPWLN PWLLGAVVMS MALHFLILLV PPLPLIFQVT  
PLSGRQWGVV LQMSLPVILL DEALKYLSRN HMDGVLGTFM QARSRLPTT SRTPYHTGKK  
GPEVNPGSRG ESPVWPSD

**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.
- Mouse Atp2a3 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:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

1. Membrane proteins are fractionated by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate

## Product Details

fractions are analyzed by Western blot.

3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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: ATP2A3

Alternative Name: Atp2a3 ([ATP2A3 Products](#))

Background: This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of calcium. Transports calcium ions from the cytosol into the sarcoplasmic/endoplasmic reticulum lumen. Contributes to calcium sequestration involved in muscular excitation/contraction. {ECO:0000250|UniProtKB:Q93084}.

Molecular Weight: 114.8 kDa Including tag.

UniProt: [Q64518](#)

Pathways: [Myometrial Relaxation and Contraction](#), [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: Protein has not been tested for activity yet. 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