

Datasheet for ABIN3136664

ATP2A1/SERCA1 Protein (AA 1-994) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	ATP2A1/SERCA1 (ATP2A1)
Protein Characteristics:	AA 1-994
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP2A1/SERCA1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MEAAHSKSTE ECLSYFGVSE TTGLTPDQVK RHLEKYGPNE LPAEEGKSLW ELVVEQFEDL</p> <p>LVRILLAAAC ISFVLAWFEE GEETVTAFVE PFVILLILIA NAIVGVWQER NAENAIEALK</p> <p>EYEPENGKVVY RADRKSVQRI KARDIVPGDI VEVAVGDKVP ADIRLSIKS TTLRVDQSIL</p> <p>TGESVSVIKH TDPVPDPRAV NQDKKNMLFS GTNIAAGKAV GIVATTGVST EIGKIRDQMA</p> <p>ATEQDKTPLQ QKLDEFGEQL SKVISLICVA VWLINIGHFN DPVHGGSWFR GAIYYFKIAV</p> <p>ALAVAAIPEG LPAVITTCLA LGTRRMAKKK AIVRSLPSVE TLGCTSVICS DKTGTLTTNQ</p> <p>MSVCKMFIID KVDGDVCSLN EFSITGSTYA PEGEVLKNDK PVRAGQYDGL VELATICALC</p> <p>NDSSLDFNET KGVYEKVGEA TETALTTLVE KMNVFNTEVR SLSKVERANA CNSVIRQLMK</p> <p>KEFTLEFSRD RKSM SVYCSP AKSSRAAVGN KMFVKGAPEG VIDRCNYVRV GTTRVPLTGP</p> <p>VKEKIMSVIK EWGTGRDTRL CLALATRDTP PKREEMVLDD SAKFMEYEMD LTFVGVVGML</p> <p>DPPRKEVTGS IQLCRDAGIR VIMITGDNKG TAIAICRRIG IFSENEVTD RAYTGREFDD</p>

LPLAEQREAC RRACCFARVE PSHKSKIVEY LQSYDEITAM TGDGVNDAPA LKKAIEIGIAM
GSGTAVAKTA SEMVLADDNF STIVAAVEEG RAIYNNMKQF IRYLISSNVG EVVCIFLTAA
LGLPEALIPV QLLWVNLVTD GLPATALGFN PPDLDIMDRP PRSPKEPLIS GWLFFRYMAI
GGYVGAATVG AAAWWFLYAE DGPVHSYHQL THFMQCTEHN PEFDGLDCEV FEAPEPMTMA
LSVLVTIEMC NALNSLSENQ SLLRMPPWVN IWLLGSICLS MSLHFLILYV DPLPMIFKLR
ALDFTQWLMV LKISLPVIGL DELLKFIARN YLEG

Sequence without tag. The proposed Strep-Tag is based on experience s 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.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.

Product Details

- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: ATP2A1/SERCA1 (ATP2A1)

Alternative Name: Atp2a1 ([ATP2A1 Products](#))

Background: Sarcoplasmic/endoplasmic reticulum calcium ATPase 1 (SERCA1) (SR Ca(2+)-ATPase 1) (EC 7.2.2.10) (Calcium pump 1) (Calcium-transporting ATPase sarcoplasmic reticulum type, fast twitch skeletal muscle isoform) (Endoplasmic reticulum class 1/2 Ca(2+) ATPase),FUNCTION: Key regulator of striated muscle performance by acting as the major Ca(2+) ATPase responsible for the reuptake of cytosolic Ca(2+) into the sarcoplasmic reticulum (PubMed:21697544, PubMed:22961106, PubMed:25640239, PubMed:26816378). Catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Contributes to calcium sequestration involved in muscular excitation/contraction (PubMed:21697544, PubMed:22961106, PubMed:25640239, PubMed:26816378). {ECO:0000269|PubMed:21697544, ECO:0000269|PubMed:22961106, ECO:0000269|PubMed:25640239, ECO:0000269|PubMed:26816378}.

Molecular Weight: 109.4 kDa

UniProt: [Q8R429](#)

Pathways: [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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce

Application Details

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Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months