

Datasheet for ABIN3136171

## ANO1 Protein (AA 1-960) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	ANO1
Protein Characteristics:	AA 1-960
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ANO1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MRVPEKYSTL PAEDRSVHIV NICAIEDLGY LPSEGTLNLS LSVDPDAECK YGLYFRDGKR</p> <p>KVDYILVYHH KRASGSRTLA RRGLQNDMVL GTRSVRQDQP LPGKGSPVDA GSPEVPMMDYH</p> <p>EDDKRFRREE YEGNLEAGL ELENDEDTKI HGVGFVKIHA PWHVLCREAE FLKLMPTKK</p> <p>VYHISETRGL LKTINSVLQK ITDPIQPKVA EHRPQTTKRL SYPFSREKQH LFDLTDRDSF</p> <p>FDSKTRSTIV YEILKRTTCT KAKYSMGITS LLANGVYSAA YPLHDGDYEG DNVEFNDRKL</p> <p>LYEEWASYGV FYKYQPIDLK RKYFGEKVGL YFAWLGAITQ MLIPASIVGV IVFLYGCATV</p> <p>DENIPSMEMC DQRYNITMCP LCDKTCSEYWK MSSACATARA SHLFDNPATV FFSVFMALWA</p> <p>ATFMEHWKRR QMRLNYRWDL TGFEEEEEA V KDHPRAEYEA RVLEKSLRKE SRNKETDKVK</p> <p>LTWRDRFPAY FTNLVSIIFM IAVTFAIVLG VIYRISTAA ALAMNSSPSV RSNIRVTVA TAVIINLVVI</p> <p>ILLDEVYGC I ARWLTKIEVP KTEKSFEERL TFKAFLKLV NSYTPIFYVA FFKGRFVGRP</p> <p>GDYVYIFRSF RMEECAPGGC LMELCIQLSI IMLGKQLIQN NLFEIGIPKM KKFIRYLKLR</p>

RQSPSDREEY VKRKQRYEVD FNLEPFAGLT PEYMEMIIQF GFVTLFVASF PLAPL FALLN  
NII EIRLDAK K FVTELRRPV AIRAKDIGIW YNILRGVGKL AVIINAFVIS FTSD FIPRLV YLYMYSQNGT  
MHGFVNHTLS SFNVSDFQNG TAPNDPLDLG YEVQICRYKD YREPPWSEHK YDISKDFWAV  
LAARLAFVIV FQNLVMFMSD FVDWVIPDIP KDISQQIHKE KVLMVELFMR EEQGKQQLLD  
TWMEKEKPRD VPCNNHSPTT HPEAGDGSPV PSYEYHGDAL

**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.**

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

## Product Details

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Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
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Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Grade:	custom-made
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## Target Details

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Target:	ANO1
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Alternative Name:	Ano1 ( <a href="#">ANO1 Products</a> )
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Background:	<p>Anoctamin-1 (Transmembrane protein 16A),FUNCTION: Calcium-activated chloride channel (CaCC) (PubMed:18724360, PubMed:28561733, PubMed:29236691, PubMed:29236684, PubMed:22002868, PubMed:25779870, PubMed:28963502, PubMed:22634729, PubMed:31147466, PubMed:34433575, PubMed:34089532, PubMed:24913262, PubMed:35135993, PubMed:23840801). Plays a role in transepithelial anion transport and smooth muscle contraction (PubMed:28561733, PubMed:29236691, PubMed:29236684). Required for the normal functioning of the interstitial cells of Cajal (ICCs) which generate electrical pacemaker activity in gastrointestinal smooth muscles. Acts as a major contributor to basal and stimulated chloride conductance in airway epithelial cells and plays an important role in tracheal cartilage development. Required for CFTR activation by enhancing endoplasmic reticulum Ca(2+) store release and is also required for CFTR membrane expression (By similarity). Required for basal and ATP-dependent mucus secretion in airways and intestine, probably by controlling exocytosis of mucus-filled granules by providing Ca(2+) to an apical signaling compartment (PubMed:30586313). Contributes to airway mucus expression induced by interleukins IL3 and IL8 and by the asthma-associated protein CLCA1 and is required for expression of mucin MUC5AC (By similarity). However, was shown in another study not to be required for MUC5AC expression (By similarity). Plays a role in the propagation of Ca(2+) waves in Kolliker's organ in the cochlea and contributes to the refinement of auditory brainstem circuitries prior to hearing onset (PubMed:35129434). In vomeronasal sensory neurons, modulates spontaneous firing patterns in the absence of stimuli as well as the firing pattern of pheromone-evoked activity (PubMed:34433575). Responsible for calcium-activated chloride channel activity in type I taste cells of the vallate papillae (PubMed:34089532). Acts as a heat sensor in nociceptive neurons (PubMed:22634729). In dorsal root ganglion neurons, plays a role in mediating non-histaminergic Mas-related G-protein coupled receptor (MRGPR)-</p>
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## Target Details

dependent itching, acting as a downstream effector of MRGPRs (PubMed:35135993). In the developing brain, required for the Ca(2+)-dependent process extension of radial glial cells (PubMed:31147466). {ECO:0000250|UniProtKB:Q5XXA6, ECO:0000269|PubMed:18585372, ECO:0000269|PubMed:18724360, ECO:0000269|PubMed:22002868, ECO:0000269|PubMed:22075693, ECO:0000269|PubMed:22634729, ECO:0000269|PubMed:24913262, ECO:0000269|PubMed:25779870, ECO:0000269|PubMed:28561733, ECO:0000269|PubMed:28963502, ECO:0000269|PubMed:29236684, ECO:0000269|PubMed:29236691, ECO:0000269|PubMed:30586313, ECO:0000269|PubMed:31147466, ECO:0000269|PubMed:34089532, ECO:0000269|PubMed:34433575, ECO:0000269|PubMed:35129434, ECO:0000269|PubMed:35135993}.

Molecular Weight: 110.9 kDa

UniProt: [Q8BHY3](#)

## 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 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!

Restrictions: For Research Use only

## Handling

Format: Liquid

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

## Handling

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Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months