

# Datasheet for ABIN7564360 **ANO1 Protein (AA 1-960) (His tag)**



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Quantity:	1 mg
Target:	ANO1
Protein Characteristics:	AA 1-960
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ANO1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details	
Purpose:	Custom-made recombinat Ano1 Protein expressed in mammalien cells.
Sequence:	MRVPEKYSTL PAEDRSVHIV NICAIEDLGY LPSEGTLLNS LSVDPDAECK YGLYFRDGKR
	KVDYILVYHH KRASGSRTLA RRGLQNDMVL GTRSVRQDQP LPGKGSPVDA GSPEVPMDYH
	EDDKRFRREE YEGNLLEAGL ELENDEDTKI HGVGFVKIHA PWHVLCREAE FLKLKMPTKK
	VYHISETRGL LKTINSVLQK ITDPIQPKVA EHRPQTTKRL SYPFSREKQH LFDLTDRDSF
	FDSKTRSTIV YEILKRTTCT KAKYSMGITS LLANGVYSAA YPLHDGDYEG DNVEFNDRKL
	LYEEWASYGV FYKYQPIDLV RKYFGEKVGL YFAWLGAYTQ MLIPASIVGV IVFLYGCATV
	DENIPSMEMC DQRYNITMCP LCDKTCSYWK MSSACATARA SHLFDNPATV FFSVFMALWA
	ATFMEHWKRK QMRLNYRWDL TGFEEEEEAV KDHPRAEYEA RVLEKSLRKE SRNKETDKVK
	LTWRDRFPAY FTNLVSIIFM IAVTFAIVLG VIIYRISTAA ALAMNSSPSV RSNIRVTVTA TAVIINLVVI
	ILLDEVYGCI ARWLTKIEVP KTEKSFEERL TFKAFLLKFV NSYTPIFYVA FFKGRFVGRP
	GDYVYIFRSF RMEECAPGGC LMELCIQLSI IMLGKQLIQN NLFEIGIPKM KKFIRYLKLR

RQSPSDREEY VKRKQRYEVD FNLEPFAGLT PEYMEMIIQF GFVTLFVASF PLAPLFALLN
NIIEIRLDAK KFVTELRRPV AIRAKDIGIW YNILRGVGKL AVIINAFVIS FTSDFIPRLV YLYMYSQNGT
MHGFVNHTLS SFNVSDFQNG TAPNDPLDLG YEVQICRYKD YREPPWSEHK YDISKDFWAV
LAARLAFVIV FQNLVMFMSD FVDWVIPDIP KDISQQIHKE KVLMVELFMR EEQGKQQLLD
TWMEKEKPRD VPCNNHSPTT HPEAGDGSPV PSYEYHGDAL 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.

#### Characteristics:

Key Benefits:

- Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalien 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, Western Blot

#### Grade:

custom-made

## **Target Details**

Target:	ANO1
Alternative Name:	Ano1 (ANO1 Products)
Background:	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)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

# **Application Details**

	as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	The buffer composition 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:	12 months