

Datasheet for ABIN7554321  
**KCNMA1 Protein (AA 1-1236) (His tag)**



[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	KCNMA1
Protein Characteristics:	AA 1-1236
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNMA1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Purpose:	Custom-made recombinat KCNMA1 Protein expressed in mammalien cells.
Sequence:	MANGGGGGGG SSGGGGGGGG SSLRMSSNIH ANHLSLDASS SSSSSSSSSS SSSSSSSSSS VHEPKMDALI IPVTMEVPCD SRGQRMWWAF LASSMVTFFG GLFIILLWRT LKYLWTVCCCH CGGKTKEAQK INNGSSQADG TLKPVDEKEE AVAAEVGWMT SVKDWAGVMI SAQTLTGRVL VVLVFALSIG ALVIYFIDSS NPIESCQNFY KDFTLQIDMA FNVFFLLYFG LRFIAANDKL WFWLEVNSVW DFFTVPVVFV SVYLNRSWLG LRFLRALRLI QFSEILQFLN ILKTSNSIKL VNLLSIFIST WLTAAGFIHL VENSGDPWEN FQNNQALTYW ECVYLLMVTM STVGYGDVYA KTTLGRLFMV FFILGGLAMF ASYVPEIIEI IGNRKKYGGG YSAVSGRKHI VVCGHITLES VSNFLKDFLH KDRDDVNVEI VFLHNISPNL ELEALFKRHF TQVEFYQGSV LNPDLARVK IESADACLIL ANKYCADPDA EDASNIMRVI SIKNYHPKIR IITQMLQYHN KAHLLNIPSW NWKEGDDAIC LAELKLGFA QSCLAQGLST MLANLFSMRS FIKIEEDTWQ KYYLEGVSNE MYTEYLSSAF VGLSFPTVCE LCFVKLKLLM IAIEYKSANR ESRILINPGN HMKIQEGTLG

FFIASDAKEV KRAFFYCKAC HDDITDPKRI KKCGCKRPKM SIYKRMRRAC CFDCGRSERD  
CSCMSGRVRG NVDTLERAFP LSSVSVNDCS TSFRAFEDEQ PSTLSPKKKQ RGGMRNSPN  
TSPKLMRHDP LLIPGNDQID NMDSNVKKYD STGMFHWCAP KEIEKVILTR SEAAMTVLSG  
HVVVICFGDV SSALIGLRNL VMPLRASNFB YHELVHIVFV GSIEYKREW ETLHNFPKVS  
ILPGTPLSRA DLRAVNINLC DMCVILSANQ NNIDDTSLQD KECILASLNI KSMQFDDSIG  
VLQANSQGFT PPGMDRSSPD NSPVHGMLRQ PSITTVGNIP IITELVNDTN VQFLDQDDDD  
DPDTELYLTQ PFACGTAFV SVLDLSMSAT YFNDNLTLI RTLVTGGATP ELEALIAEEN  
ALRGGYSTPQ TLANRDRCRV AQLALLDGP ADLGDGGCYG DLFCKALKTY NMLCFGIYRL  
RDAHLSTPSQ CTKRYVITNP PYEFELVPTD LIFCLMQFDH NAGQSRASLS HSSHSSQSSS  
KKSSSVHSIP STANRQNRPK SRESRDQKY VQEERL **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.**

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### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian 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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

KCNMA1

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### Alternative Name:

KCNMA1 ([KCNMA1 Products](#))

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## Target Details

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**Background:** Calcium-activated potassium channel subunit alpha-1 (BK channel) (BKCA alpha) (Calcium-activated potassium channel, subfamily M subunit alpha-1) (K(VCA)alpha) (KCa1.1) (Maxi K channel) (MaxiK) (Slo-alpha) (Slo1) (Slowpoke homolog) (Slo homolog) (hSlo),FUNCTION: Potassium channel activated by both membrane depolarization or increase in cytosolic Ca(2+) that mediates export of K(+) (PubMed:29330545, PubMed:31152168). It is also activated by the concentration of cytosolic Mg(2+). Its activation dampens the excitatory events that elevate the cytosolic Ca(2+) concentration and/or depolarize the cell membrane. It therefore contributes to repolarization of the membrane potential. Plays a key role in controlling excitability in a number of systems, such as regulation of the contraction of smooth muscle, the tuning of hair cells in the cochlea, regulation of transmitter release, and innate immunity. In smooth muscles, its activation by high level of Ca(2+), caused by ryanodine receptors in the sarcoplasmic reticulum, regulates the membrane potential. In cochlea cells, its number and kinetic properties partly determine the characteristic frequency of each hair cell and thereby helps to establish a tonotopic map. Kinetics of KCNMA1 channels are determined by alternative splicing, phosphorylation status and its combination with modulating beta subunits. Highly sensitive to both iberiotoxin (IbTx) and charybdotoxin (CTX). {ECO:0000269|PubMed:29330545, ECO:0000269|PubMed:31152168}.

**Molecular Weight:** 137.6 kDa

**UniProt:** [Q12791](#)

**Pathways:** [Regulation of Hormone Metabolic Process, Sensory Perception of Sound](#)

## Application Details

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**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.

**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

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

**Handling Advice:** Avoid repeated freeze-thaw cycles.

**Storage:** -80 °C

## Handling

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months