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Datasheet for ABIN7554234  
**KCNA5 Protein (AA 1-613) (His tag)**

## Overview

Quantity:	1 mg
Target:	KCNA5
Protein Characteristics:	AA 1-613
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCNA5 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant KCNA5 Protein expressed in mammalian cells.
Sequence:	MEIALVPLEN GGAMTVRGGD EARAGCGQAT GGELQCPPTA GLSDGPKEPA PKGRGAQRDA DSGVRPLPPL PDPGVRPLPP LPEELPRPRR PPPEDDEEEG DPGLGTVEDQ ALGTASLHHQ RVHINISGLR FETQLGTLAQ FPNTLLGDPA KRLRYFDPLR NEYFFDRNRP SFDGILYYYQ SGGRLRRPVN VSLDVFADEI RFYQLGDEAM ERFREDEGFI KEEKPLPRN EFQRQVWLIF EYPESSGSAR AIAIVSVLVI LISIITFCLE TLPEFRDERE LLRHPPAPHQ PPAPAPGANG SGVMAPPSGP TVAPLLPRTL ADPFFIVETT CUIWFTFELL VRRFFACPSKA GFSRNIMNII DVVAIFPYFI TLGTELAEQQ PGGGGGGQNG QQAMSLAILR VIRLVRVFRI FKLSRHSKGL QILGKTLQAS MRELGLLIFF LFIGVILFSS AVYFAEADNQ GTHFSSIPDA FWWAVVTMTT VGYGDMRPIT VGGKIVGSLC AIAGVLTIAL PVPVIVSNFN YFYHRETDHE EPAVLKKEEQG TQSQGPGLDR GVQRKVSISR GSFCKAGGTL ENADSARRGS CPLEKCNVKA KSNVDLRRSL YALCLDTSRE TDL <b>Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make</b>

## Product Details

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**another tag necessary. In case you have a special request, please contact us.**

**Specificity:** If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

**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.

**Purity:** > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

**Grade:** custom-made

## Target Details

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**Target:** KCNA5

**Alternative Name:** KCNA5 ([KCNA5 Products](#))

**Background:** Potassium voltage-gated channel subfamily A member 5 (HPCN1) (Voltage-gated potassium channel HK2) (Voltage-gated potassium channel subunit Kv1.5),FUNCTION: Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochemical gradient. The channel alternates between opened and closed conformations in response to the voltage difference across the membrane. Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA5, and possibly other family members as well, channel properties depend on the type of alpha subunits that are part of the channel (PubMed:12130714). Channel properties are modulated by cytoplasmic beta subunits that

## Target Details

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regulate the subcellular location of the alpha subunits and promote rapid inactivation (PubMed:12130714). Homotetrameric channels display rapid activation and slow inactivation (PubMed:8505626, PubMed:12130714). May play a role in regulating the secretion of insulin in normal pancreatic islets. Isoform 2 exhibits a voltage-dependent recovery from inactivation and an excessive cumulative inactivation (PubMed:11524461). {ECO:0000269|PubMed:11524461, ECO:0000269|PubMed:12130714, ECO:0000269|PubMed:8505626}.

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Molecular Weight: 67.2 kDa

UniProt: [P22460](#)

## Application Details

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Application Notes: We expect the protein to work for functional studies. 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

Storage Comment: Store at -80°C.

Expiry Date: 12 months