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# Product Information

## MemDX™ Membrane Protein Human KCNA2 (Potassium voltage-gated channel subfamily A member 2) Full Length

Cat. No.: **MPC0578K**
This product is for research use only and is not intended for diagnostic use.

This product is a 56.7 kDa Human KCNA2 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

## Product Specifications

**Host Species**
Human

**Target Protein**
KCNA2

**Protein Length**
Full length

**Protein Class**
Transporter; Ion channel

**Molecular Weight**
56.7 kDa

**TMD**
6

**Sequence**
MTVATGDPADEAAALPGHPQDTYDPEADHECCERVVINISGLRFETQLKT
LAQFPETLLGDPKKRMRYFDPLRNEYFFDRNRPSFDAILYYYQSGGRLRR
PVNVPLDIFSEEIRFYELGEEAMEMFREDEGYIKEEERPLPENEFQRQVW
LLFEYPESSGPARIIAIVSVMVILISIVSFCLETLPIFRDENEDMHGSGV
TFHTYSNSTIGYQQSTSFTDPFFIVETLCIIWFSFEFLVRFFACPSKAGF
FTNIMNIIDIVAIIPYFITLGTELAEKPEDAQQGQQAMSLAILRVIRLVR
VFRIFKLSRHSKGLQILGQTLKASMRELGLLIFFLFIGVILFSSAVYFAE
ADERESQFPSIPDAFWWAVVSMTTVGYGDMVPTTIGGKIVGSLCAIAGVL
TIALPVPVIVSNFNYFYHRETEGEEQAQYLQVTSCPKIPSSPDLKKSRSA
STISKSDYMEIQEGVNNSNEDFREENLKTANCTLANTNYVNITKMLTDV

## Product Description

**Expression Systems**
HEK293

**Tag**

Based on specific requirements

**Protein Format**

Detergent or based on specific requirements

**Form**

Liquid

**Storage**

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

## Target

**Target Protein**

KCNA2

**Full Name**

Potassium voltage-gated channel subfamily A member 2

**Introduction**

Potassium channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in Drosophila, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. This member contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It belongs to the delayed rectifier class, members of which allow nerve cells to efficiently repolarize following an action potential. The coding region of this gene is intronless, and the gene is clustered with genes KCNA3 and KCNA10 on chromosome 1.

**Alternative Names**

HK4; MK2; HBK5; NGK1; RBK2; DEE32; HUKIV; KV1.2; EIEE32; potassium voltage-gated channel subfamily A member 2; potassium channel, voltage gated shaker related subfamily A, member 2; potassium voltage-gated channel, shaker-related subfamily, member 2; voltage-gated K(+) channel HuKIV; voltage-gated potassium channel HBK5; voltage-gated potassium channel protein Kv1.2; voltage-gated potassium channel subunit Kv1.2; KCNA2; Potassium voltage-gated channel subfamily A member 2

**Gene ID**

3737

**UniProt ID**

P16389

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