

# Product Information

## MemDX™ Membrane Protein Human KCNA2 (Potassium voltage-gated channel subfamily A member 2) for Antibody Discovery

Cat. No.: **MP1245J**

This product is for research use only and is not intended for diagnostic use.

This product is a 56.5 kDa Human KCNA2 membrane protein expressed in HEK293T. 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

Druggable Genome, Ion Channels: Potassium, Transmembrane

#### Molecular Weight

56.5 kDa

#### TMD

6

#### Sequence

MTVATGDPADAAAALPGHPQDTYDPEADHECCERVVINISGLRFETQLKTLAQFPETLLGDPKKRMRYFD  
PLRNEYFFDRNRPSFDAILYYYQSGGRLRRPVNVPLDIFSEEIRFYELGEEAMEMFREDEGYIKEEERPL  
PENEFQRQVWLLFEYPSSGPARIIAIVSVMVILISIVSFCLETLPFRDENEDMHGSGVTFHTYSNSTI  
GYQQSTSFTDPFFIVETLCIIWFSFEFLVRFFACPSKAGFFTNNIMNIIDIVAIIPYFITLGTLEAKPED  
AQQGQQAMSLAILRVIRLVRFIRFKLSRHSKGLQILGQTLKASMRELGLLIFFLFIGVILFSSAVYFAE  
ADERESQFPSIPDAFWVAVVSMTTVGYGDMVPTTIGGKIVGSLCAIAGVLTIALPVPVIVSNFNFYFHRE  
TEGEEQAQYLQVTSCPKIPSSPDLKKSRSASTISKSDYMEIQEGVNNNSNEDFREENLKTANCTLANTNYV  
NITKMLTDV

### Product Description

#### Expression Systems

HEK293T

#### Tag

C-Myc/DDK

## Form

Liquid

## Purification

Anti-DDK affinity column followed by conventional chromatography steps

## Purity

> 80% as determined by SDS-PAGE and Coomassie blue staining

## Buffer

25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol

## Storage

Store at +4°C for up to one week or several months at -80°C

## 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 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

## Gene ID

[3737](#)

## UniProt ID

[P16389](#)