

## Product Information

### MemDX™ Membrane Protein Human KCNA1 (Potassium voltage-gated channel subfamily A member 1) expressed in E.coli for Antibody Discovery

Cat. No.: **MP1374J**

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

This product is a 22.2 kDa Human KCNA1 membrane protein expressed in E.coli. 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

KCNA1

##### Protein Length

Partial (1-154aa)

##### Protein Class

Ion Channel

##### Molecular Weight

22.2 kDa

##### Sequence

MTVMSGENVDEASAAPGHPQDGSYPRQADHDDHECCERVVINISGLRFETQLKTLAQFPNTLLGNPKKRMRYFDPLRNEYFFDRM

#### Product Description

##### Expression Systems

E.coli

##### Tag

N-6xHis

##### Form

Liquid or Lyophilized powder

##### Reconstitution

Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration).

##### Purity

>90% as determined by SDS-PAGE

## Buffer

Liquid: Tris/PBS-based buffer, 5%-50% glycerol  
Lyophilized powder: Tris/PBS-based buffer, 6% Trehalose, pH 8.0

## Storage

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

## Target

### Target Protein

KCNA1

### Full Name

Potassium voltage-gated channel subfamily A member 1

### Introduction

This gene encodes a voltage-gated delayed potassium channel that is phylogenetically related to the *Drosophila* Shaker channel. The encoded protein has six putative transmembrane segments (S1-S6), and the loop between S5 and S6 forms the pore and contains the conserved selectivity filter motif (GYGD). The functional channel is a homotetramer. The N-terminus of the channel is associated with beta subunits that can modify the inactivation properties of the channel as well as affect expression levels. The C-terminus of the channel is complexed to a PDZ domain protein that is responsible for channel targeting. Mutations in this gene have been associated with myokymia with periodic ataxia (AEMK).

### Alternative Names

AEMK; EA1; Episodic ataxia with myokymia; HBK1; HUK1; Kca1 1; Kcna1; KCNA1\_HUMAN; Kcpvd; KV1.1; MBK1; mceph; MGC124402; MGC126782; MGC138385; MK1; MK1, mouse, homolog of KV1.1; Potassium channel protein 1; Potassium voltage gated channel shaker related subfamily member 1; Potassium voltage gated channel subfamily A member 1; Potassium voltage gated channel, shaker related subfamily, member 1 (episodic ataxia with myokymia); Potassium voltage-gated channel subfamily A member 1; RBK1; RCK1; Shak; Shaker related subfamily member 1; Voltage gated potassium channel subunit Kv1.1; Voltage-gated K(+) channel HuKI; Voltage-gated potassium channel HBK1; Voltage-gated potassium channel subunit Kv1.1

### Gene ID

[3736](#)

### UniProt ID

[Q09470](#)