

# Product Information

## **MemDX™ Membrane Protein Human KCND2 (Potassium voltage-gated channel subfamily D member 2) Expressed *in vitro* E.coli expression system, Full Length**

Cat. No.: **MPX2837K**

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

This product is a Human KCND2 membrane protein expressed *in vitro* E.coli expression system. 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

KCND2

#### Protein Length

Full Length

#### Protein Class

Ion channel, Transport

#### TMD

6

#### Sequence

MAAGVAAWLPFARAAAIGWMPVASGPMPPRQERKRTQDALIVLNVSQTRFQTWQDTLERYPDTLGSSERDFFYPETQQYF

### Product Description

#### Expression Systems

*in vitro* E.coli expression system

#### Tag

10xHis tag at the N-terminus

#### Protein Format

Soluble

#### Form

Liquid or Lyophilized powder

#### Buffer

Tris/PBS-based buffer, 6% Trehalose, pH 8.0

### 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

KCND2

#### Full Name

Potassium voltage-gated channel subfamily D member 2

#### Introduction

Voltage-gated potassium (Kv) 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, shal-related subfamily, members of which form voltage-activated A-type potassium ion channels and are prominent in the repolarization phase of the action potential. This member mediates a rapidly inactivating, A-type outward potassium current which is not under the control of the N terminus as it is in Shaker channels.

#### Alternative Names

KCND2; RK5; KV4.2; potassium channel, voltage gated Shal related subfamily D, member 2; voltage-gated potassium channel subunit Kv4.2; voltage-sensitive potassium channel; Potassium voltage-gated channel subfamily D member 2

#### Gene ID

[3751](#)

#### UniProt ID

[Q9NZV8](#)