

# Product Information

## **MemDX™ Membrane Protein Human KCNJ3 (Potassium inwardly rectifying channel subfamily J member 3) Expressed *in vitro* E.coli expression system, Full Length**

Cat. No.: **MPX1864K**

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

This product is a Human KCNJ3 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

KCNJ3

#### Protein Length

Full Length

#### Protein Class

Ion channel, Transport

#### TMD

2

#### Sequence

MSALRRKFGDDYQVVTSSSGSGLQPQGPQDPQQQLVPKKKRQRFVDKNGRCNVQHGNLGSETSRYLSDLFTTLVDLKWRWN

### 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

KCNJ3

#### Full Name

Potassium inwardly rectifying channel subfamily J member 3

#### Introduction

Potassium channels are present in most mammalian cells, where they participate in a wide range of physiologic responses. The protein encoded by this gene is an integral membrane protein and inward-rectifier type potassium channel. The encoded protein, which has a greater tendency to allow potassium to flow into a cell rather than out of a cell, is controlled by G-proteins and plays an important role in regulating heartbeat. It associates with three other G-protein-activated potassium channels to form a heteromultimeric pore-forming complex that also couples to neurotransmitter receptors in the brain and whereby channel activation can inhibit action potential firing by hyperpolarizing the plasma membrane. These multimeric G-protein-gated inwardly-rectifying potassium (GIRK) channels may play a role in the pathophysiology of epilepsy, addiction, Down's syndrome, ataxia, and Parkinson's disease. Alternative splicing results in multiple transcript variants encoding distinct proteins.

#### Alternative Names

KCNJ3; KGA; GIRK1; KIR3.1; G protein-activated inward rectifier potassium channel 1; GIRK-1; inward rectifier K(+) channel Kir3.1; inward rectifier K+ channel KIR3.1; potassium channel, inwardly rectifying subfamily J member 3; potassium inwardly-rectifying channel subfamily J member 3 splice variant 1e; potassium voltage-gated channel subfamily J member 3; Potassium inwardly rectifying channel subfamily J member 3

#### Gene ID

[3760](#)

#### UniProt ID

[P48549](#)