

Product Information

MemDX™ Membrane Protein Human KCNQ1 (Potassium voltage-gated channel subfamily Q member 1) Expressed *in vitro* E.coli expression system, Full Length

Cat. No.: **MPX2854K**

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

This product is a Human KCNQ1 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

KCNQ1

Protein Length

Full Length

Protein Class

Ion channel, Transport

TMD

6

Sequence

MAAASSPPRAERKRWGWGRLPGARRGSAGLAKKCPFSLELAEGGPAGGALYAPIAPGAPGPAPPASPAAPAAPPVASDLGPRPP

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

KCNQ1

Full Name

Potassium voltage-gated channel subfamily Q member 1

Introduction

This gene encodes a voltage-gated potassium channel required for repolarization phase of the cardiac action potential. This protein can form heteromultimers with two other potassium channel proteins, KCNE1 and KCNE3. Mutations in this gene are associated with hereditary long QT syndrome 1 (also known as Romano-Ward syndrome), Jervell and Lange-Nielsen syndrome, and familial atrial fibrillation. This gene exhibits tissue-specific imprinting, with preferential expression from the maternal allele in some tissues, and biallelic expression in others. This gene is located in a region of chromosome 11 amongst other imprinted genes that are associated with Beckwith-Wiedemann syndrome (BWS), and itself has been shown to be disrupted by chromosomal rearrangements in patients with BWS. Alternatively spliced transcript variants have been found for this gene.

Alternative Names

KCNQ1; LQT; RWS; WRS; LQT1; SQT2; ATFB1; ATFB3; JLNS1; KCNA8; KCNA9; Kv1.9; Kv7.1; KVLQT1; IKs producing slow voltage-gated potassium channel subunit alpha KvLQT1; kidney and cardiac voltage dependend K⁺ channel; potassium channel, voltage gated KQT-like subfamily Q, member 1; potassium voltage-gated channel, KQT-like subfamily, member 1; slow delayed rectifier channel subunit; voltage-gated potassium channel subunit Kv7.1; Potassium voltage-gated channel subfamily Q member 1

Gene ID

[3784](#)

UniProt ID

[P51787](#)