HERG1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HERG1, Polyclonal Antibody
Full Product Name	HERG1 (Ether-a-go-go-related Gene Potassium Channel 1, Ether-a-go-go-related Protein 1, Eag-related Protein 1, ERG1, ERG-1, ERG, hERG1, hERG-1, HERG, H-ERG, Eag Homolog, Kv11.1, LQT2, Potassium Voltage-gated Channel Subfamily H Member 2, KCNH2, SQT1, Volt
Product Gene Name	anti-HERG1 antibody
Product Synonym Names	Potassium Voltage-gated Channel; Subfamily H (Eag-related); Member 2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human KCNH2.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	115,636 Da
OMIM	phenotype 613688
3D Structure	ModBase 3D Structure for Q12809
Immunogen	Synthetic peptide selected from the center region of human KCNH2 (KLH).
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-HERG1 antibody	Antibodies; Ion Channel
Applications Tested/Suitable for anti-HERG1 antibody	Western Blot (WB), FLISA
Application Notes for anti-HERG1 antibody	WB: 1:100-1:500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-HERG1 antibody	MBS6480073 is an antibody targeting HERG1. Also known as HERG1 (Ether-a-go-go-related Gene Potassium Channel 1, Ether-a-go-go-related Protein 1, Eag-related Protein 1, ERG1, ERG-1, ERG, hERG1, hERG-1, HERG, H-ERG, Eag Homolog, Kv11.1, LQT2, Potassium Voltage-gated Channel Subfamily H Member 2, KCNH2, SQT1, Volt. Reactive in Human. Host: Rabbit.
Product References and Citations for anti-HERG1 antibody	1. Trudeau, M.C., et.al., Science 269(5220), 92-95 (1995).

Other Notes	Small volumes of anti-HERG1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HERG1. It may not necessarily be applicable to this product.

NCBI GI #	4557729
NCBI GeneID	3757
NCBI Accession #	NP_000229.1
UniProt Primary Accession #	Q12809
UniProt Secondary Accession #	O75418; O75680; Q708S9; Q9BT72; Q9BUT7; Q9H3P0; A5H1P7; C4PFH9; D3DX04
UniProt Related Accession #	Q12809
GenBank Nucleotide #	NM_000238.3
NCBI Official Full Name	potassium voltage-gated channel subfamily H member 2 isoform a
NCBI Official Synonym Full Names	potassium voltage-gated channel subfamily H member 2
NCBI Official Symbol	KCNH2
NCBI Official Synonym Symbols	ERG1; HERG; LQT2; SQT1; ERG-1; H-ERG; HERG1; Kv11.1
UniProt Protein Name	Potassium voltage-gated channel subfamily H member 2
UniProt Synonym Protein Names	Eag homolog; Ether-a-go-go-related gene potassium channel 1; ERG-1; Eag-related protein 1; Ether-a-go-go-related protein 1; H-ERG; hERG-1; hERG1; Voltage-gated potassium channel subunit Kv11.1
Protein Family	Potassium voltage-gated channel subfamily
UniProt Gene Name	KCNH2
UniProt Synonym Gene Names	ERG; ERG1; HERG; ERG-1; Eag-related protein 1; Ether-a-go-go-related protein 1; H-ERG; hERG-1; hERG1
UniProt Entry Name	KCNH2_HUMAN
NCBI Protein Information	potassium voltage-gated channel subfamily H member 2
NCBI Summary for HERG1	This gene encodes a voltage-activated potassium channel belonging to the eag family. It shares sequence similarity with the Drosophila ether-a-go-go (eag) gene. Mutations in this gene can cause long QT syndrome type 2 (LQT2). Transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Jul 2008]

UniProt Comments for HERG1	Kv11.1: the ether-a-go-go related gene is a pore-forming (alpha) subunit of voltage-gated inwardly rectifying potassium channel is associated with cardiac arrhythmias and rhythmic excitability of the pituitary. Channel properties are modulated by cAMP and subunit assembly. Mediates the rapidly activating component of the delayed rectifying potassium current in heart (IKr). The potassium channel is probably composed of a homo- or heterotetrameric complex of pore-forming alpha subunits that can associate with modulating beta subunits. Heteromultimer with Kv11.2 and Kv11.3. Interacts with ALG10B. Heteromultimer with KCNE1 and KCNE2. Defects in Kv11.1 are the cause of long QT syndrome type 2 (LQT2), a heart disorder characterized by a prolonged QT interval on the ECG and polymorphic ventricular arrhythmias. They cause syncope and sudden death in response to exercise or emotional stress. Deafness is often associated with LQT2. Defects in Kv11.1 are the cause of short QT syndrome type 1 (SQT1), a heart disorder characterized by idiopathic persistently and uniformly short QT interval on ECG in the absence of structural heart disease in affected individuals. They cause syncope and sudden death. Four isoforms of the human protein are produced by alternative splicing. Isoform 3 has no channel activity by itself, but modulates channel characteristics when associated with isoform 1. Protein type: Membrane protein, multi-pass; Membrane protein, integral; Channel, potassium; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 7q36.1 Cellular Component: voltage-gated potassium channel complex; cell surface; cytoplasm; plasma membrane; nuclear envelope Molecular Function: identical protein binding; protein binding; voltage-gated potassium channel activity; protein homodimerization activity; delayed rectifier potassium channel activity; ubiquitin protein ligase binding; inward rectifier potassium channel activity; two-component sensor activity Biological Process: synaptic transmission; regulation of membrane potential; two-component signal transduction system (phosphorelay); regulation of the rate of heart contraction by hormone; potassium ion homeostasis; cardiac muscle contraction Disease: Long Qt Syndrome 2; Short Qt Syndrome 1
Research Articles on HERG1	**1.** Study shows that slow on-gating charge movement can only partly account for slow hERG ionic activation, and that the rate of pore closure has a limiting role in the slow return of gating charges
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