

ARG55375 anti-KCNQ1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes KCNQ1
Tested Reactivity	Hu
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	KCNQ1
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 4-33 (N-terminus) of Human KCNQ1.
Conjugation	Un-conjugated
Alternate Names	Voltage-gated potassium channel subunit Kv7.1; KQT-like 1; JLNS1; LQT; KVLQT1; Kv1.9; KCNA9; IKs producing slow voltage-gated potassium channel subunit alpha KvLQT1; SQT2; RWS; LQT1; WRS; KCNA8; ATFB3; Potassium voltage-gated channel subfamily KQT member 1; Kv7.1; ATFB1

Application Instructions

Application table	<table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>WB</td><td>1:1000</td></tr> </table>	Application	Dilution	WB	1:1000
Application	Dilution				
WB	1:1000				
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.				
Positive Control	MDA-MB-435				

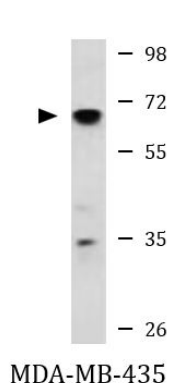
Properties

Form	Liquid
Purification	Purification with Protein A and immunogen peptide.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 3784 Human Swiss-port # P51787 Human
Gene Symbol	KCNQ1
Gene Full Name	potassium channel, voltage gated KQT-like subfamily Q, member 1
Background	<p>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. [provided by RefSeq, Aug 2011]</p>
Function	<p>Probably important in cardiac repolarization. Associates with KCNE1 (Mink) to form the I(Ks) cardiac potassium current. Elicits a rapidly activating, potassium-selective outward current. Muscarinic agonist oxotremorine-M strongly suppresses KCNQ1/KCNE1 current in CHO cells in which cloned KCNQ1/KCNE1 channels were coexpressed with M1 muscarinic receptors. May associate also with KCNE3 (MiRP2) to form the potassium channel that is important for cyclic AMP-stimulated intestinal secretion of chloride ions, which is reduced in cystic fibrosis and pathologically stimulated in cholera and other forms of secretory diarrhea. [UniProt]</p>
Research Area	Cell Biology and Cellular Response antibody; Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	75 kDa
PTM	<p>Phosphorylation at Ser-27 by PKA; increases delayed rectifier potassium channel activity of the KCNQ1-KCNE1 complex through a macromolecular complex that includes PKA, PP1, and the targeting protein AKAP9.</p> <p>Ubiquitinated by NEDD4L; promotes internalization (PubMed:22024150). The ubiquitinated form is internalized through a clathrin-mediated endocytosis by interacting with AP2M1 and is recycled back to the cell membrane via RAB4A and RAB11A (PubMed:23529131).</p> <p>Deubiquitinated by USP2; counteracts the NEDD4L-specific down-regulation of I(Ks) and restores the membrane localization.</p>
Cellular Localization	Cell membrane; Multi-pass membrane protein Cytoplasmic vesicle membrane; Multi- pass membrane protein

Images



ARG55375 anti-KCNQ1 antibody WB image

Western blot: 35 µg of MDA-MB-435 cell lysate stained with ARG55375 anti-KCNQ1 antibody.