ARG40377
anti-KCNA5 / Kv1.5 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes KCNA5 / Kv1.5
Tested Reactivity	Hu
Predict Reactivity	Bov
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	KCNA5 / Kv1.5
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 583-613 of Human KCNA5. (LEKCNVKAKSNVDLRRSLYALCLDTSRETDL)
Conjugation	Un-conjugated
Alternate Names	KV1.5; HK2; HPCN1; Potassium voltage-gated channel subfamily A member 5; PCN1; ATFB7; Voltage-gated potassium channel HK2; HCK1; Voltage-gated potassium channel subunit Kv1.5

Application Instructions

Application table

Application	Dilution
WB	0.1 - 0.5 µg/ml

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Observed Size	67 kDa

Properties

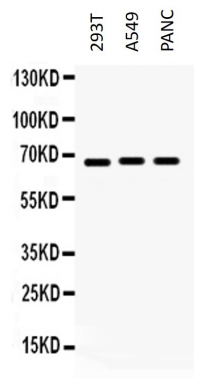
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term 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

Gene Symbol	KCNA5
Gene Full Name	potassium channel, voltage gated shaker related subfamily A, member 5
Background	Potassium channels represent the most complex class of voltage-gated ino 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, shaker-related subfamily. This member contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It belongs to the delayed rectifier class, the function of which could restore the resting membrane potential of beta cells after depolarization and thereby contribute to the regulation of insulin secretion. This gene is intronless, and the gene is clustered with genes KCNA1 and KCNA6 on chromosome 12. Defects in this gene are a cause of familial atrial fibrillation type 7 (ATFB7). [provided by RefSeq, May 2012]
Function	Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochemical gradient. The channel alternates between opened and closed conformations in response to the voltage difference across the membrane. Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA5, and possibly other family members as well; channel properties depend on the type of alpha subunits that are part of the channel. Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation. Homotetrameric channels display rapid activation and slow inactivation. May play a role in regulating the secretion of insulin in normal pancreatic islets. Isoform 2 exhibits a voltage-dependent recovery from inactivation and an excessive cumulative inactivation. [UniProt]
Calculated Mw	67 kDa
PTM	Sumoylated on Lys-221, and Lys-536, preferentially with SUMO3. Sumoylation regulates the voltage sensitivity of the channel. [UniProt]
Cellular Localization	Cell membrane; Multi-pass membrane protein. [UniProt]

Images



ARG40377 anti-KCNA5 / Kv1.5 antibody WB image

Western blot: 40 µg of 293T, A549 and PANC whole cell lysates stained with ARG40377 anti-KCNA5 / Kv1.5 antibody at 0.5 µg/ml dilution.