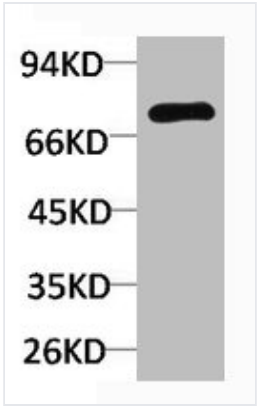
KCNA5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	KCNA5, Polyclonal Antibody
Full Product Name	KCNA5 Antibody
Product Gene Name	anti-KCNA5 antibody
Product Synonym Names	KCNA5; Potassium voltage-gated channel subfamily A member 5; HPCN1; Voltage-gated potassium channel HK2; Voltage-gated potassium channel subunit Kv1.5
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; In Phosphate Buffered Saline, 50% Glycerol, 0.5% BSA and 0.02% Sodium Azide.
Purity/Purification	Affinity-purified from rabbit antiserum by affinity-chromatography using specific immunogen.
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	67,228 Da
Chromosome Location	Chromosome: 12; NC_000012.11 (5153085..5155954). Location: 12p13
OMIM	176267
3D Structure	ModBase 3D Structure for P22460
Immunogen	Synthetic Peptide
Immunogen Species	Human
Conjugate	Non-conjugated
Product Categories/Family for anti-KCNA5 antibody	Cardiovascular
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-KCNA5 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-KCNA5 antibody	WB: 1:1000-2000
Related Product Information for anti-KCNA5 antibody	MBS7122719 is an antibody targeting KCNA5. Also known as KCNA5 Antibody. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-KCNA5 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.



Western Blot (WB) of anti-KCNA5 antibody
Western blot analysis of 293T with KV1.5 Rabbit pAb diluted at 1:2,000.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KCNA5. It may not necessarily be applicable to this product.

NCBI GI #	25952087
NCBI GeneID	3741
NCBI Accession #	NP_002225.2
UniProt Primary Accession #	P22460
UniProt Secondary Accession #	Q4KKT8; Q4VAJ1; Q4VAJ2; Q9UDA4
UniProt Related Accession #	P22460
GenBank Nucleotide #	NM_002234.3
NCBI Official Full Name	potassium voltage-gated channel subfamily A member 5
NCBI Official Synonym Full Names	potassium voltage-gated channel, shaker-related subfamily, member 5
NCBI Official Symbol	KCNA5
NCBI Official Synonym Symbols	HK2; HCK1; PCN1; ATFB7; HPCN1; KV1.5
UniProt Protein Name	Potassium voltage-gated channel subfamily A member 5
UniProt Synonym Protein Names	HPCN1; Voltage-gated potassium channel HK2; Voltage-gated potassium channel subunit Kv1.5
Protein Family	Potassium voltage-gated channel subfamily
UniProt Gene Name	KCNA5
UniProt Entry Name	KCNA5_HUMAN
NCBI Protein Information	potassium voltage-gated channel subfamily A member 5; potassium channel 1; cardiac potassium channel; voltage-gated potassium channel HK2; insulinoma and islet potassium channel; voltage-gated potassium channel protein Kv1.5; voltage-gated potassium chann
NCBI Summary for KCNA5	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]

UniProt Comments for KCNA5	Kv1.5: Mediates the voltage-dependent potassium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, the protein forms a potassium-selective channel through which potassium ions may pass in accordance with their electrochemical gradient. This channel displays 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. Defects in KCNA5 are the cause of familial atrial fibrillation type 7 (ATFB7). Atrial fibrillation is a common disorder of cardiac rhythm that is hereditary in a small subgroup of patients. It is characterized by disorganized atrial electrical activity, progressive deterioration of atrial electromechanical function and ineffective pumping of blood into the ventricles. It can be associated with palpitations, syncope, thromboembolic stroke, and congestive heart failure. Belongs to the potassium channel family. A (Shaker) (TC 1.A.1.2) subfamily. Kv1.5/KCNA5 sub-subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Channel, potassium; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 12p13 Cellular Component: Golgi apparatus; voltage-gated potassium channel complex; intracellular canaliculus; perinuclear region of cytoplasm; integral to plasma membrane; endoplasmic reticulum; plasma membrane; caveola; Z disc; lipid raft Molecular Function: protein binding; outward rectifier potassium channel activity; delayed rectifier potassium channel activity; alpha-actinin binding; potassium channel inhibitor activity; protein kinase binding; receptor binding Biological Process: synaptic transmission; regulation of membrane potential; regulation of potassium ion transport; reduction of cytosolic calcium ion concentration; regulation of vasoconstriction; negative regulation of potassium ion transport; membrane hyperpolarization; response to hypoxia; potassium ion homeostasis; regulation of insulin secretion; potassium ion transport; protein homooligomerization Disease: Atrial Fibrillation, Familial, 7
Research Articles on KCNA5	**1.** AMPK is a potent regulator of Kv1.5. AMPK inhibits Kv1.5 presumably in part by activation of Nedd4- 2 with subsequent clearance of channel protein from the cell membrane.
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