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KCNA5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17043B

Specification

KCNA5 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	P22460
Other Accession	NP_002225.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**67228**
Antigen Region	**508-536**

KCNA5 Antibody (C-term) - Additional Information

Gene ID 3741

Other Names
Potassium voltage-gated channel subfamily A member 5, HPCN1, Voltage-gated potassium channel HK2, Voltage-gated potassium channel subunit Kv15, KCNA5

Target/Specificity
This KCNA5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 508-536 amino acids from the C-terminal region of human KCNA5.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
KCNA5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

KCNA5 Antibody (C-term) - Protein Information

Name KCNA5

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 (PubMed:12130714). Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation (PubMed:12130714). Homotetrameric channels display rapid activation and slow inactivation (PubMed:12130714, PubMed:8505626). Required for normal electrical conduction including formation of the infranodal ventricular conduction system and normal action potential configuration, as a result of its interaction with XIRP2 (By similarity). May play a role in regulating the secretion of insulin in normal pancreatic islets.

Cellular Location
Cell membrane; Multi-pass membrane protein

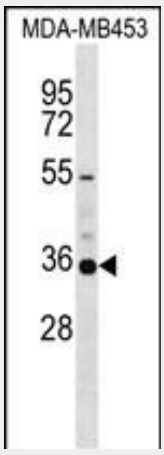
Tissue Location
Pancreatic islets and insulinoma.

KCNA5 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KCNA5 Antibody (C-term) - Images



KCNA5 Antibody (C-term) (Cat. #AP17043b) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the KCNA5 antibody detected the KCNA5 protein (arrow).

KCNA5 Antibody (C-term) - 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. [provided by RefSeq].

KCNA5 Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Wipff, J., et al. Arthritis Rheum. 62(10):3093-3100(2010)
Roberts, K.E., et al. Gastroenterology 139(1):130-139(2010)
Dou, Y., et al. Am. J. Physiol., Cell Physiol. 298 (6), C1343-C1352 (2010) :
Yang, Y.Q., et al. Zhonghua Yi Xue Za Zhi 90(16):1100-1104(2010)