

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

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:[8505626](#), PubMed:[12130714](#)). 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 (PubMed:[11524461](#)).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

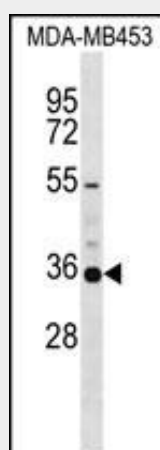
Pancreatic islets and insulinoma.

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 Cytometry](#)
- [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 ion 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)