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KCNA5 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17043b

Specification

KCNA5 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P22460

KCNA5 Antibody (C-term) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

KCNA5 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- Blocking Peptides

KCNA5 Antibody (C-term) Blocking Peptide - Images

KCNA5 Antibody (C-term) Blocking Peptide - Background

Potassium channels represent the most complex class ofvoltage-gated ino channels from both functional and structuralstandpoints. Their diverse functions include regulatingneurotransmitter release, heart rate, insulin secretion, neuronalexcitability, epithelial electrolyte transport, smooth musclecontraction, and cell volume. Four sequence-related potassiumchannel genes - shaker, shaw, shab, and shal - have been identifiedin 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 sixmembrane-spanning domains with a shaker-type repeat in the fourthsegment. It belongs to the delayed rectifier class, the function ofwhich could restore the resting membrane potential of beta cellsafter depolarization and thereby contribute to the regulation ofinsulin secretion. This gene is intronless, and the gene isclustered with genes KCNA1 and KCNA6 on chromosome 12. [provided byRefSeq].

KCNA5 Antibody (C-term) Blocking Peptide - 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)