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Kv1.5 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51820

Product Information

Application	WB
Primary Accession	P22460
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	67228

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	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Kv1.5. The exact sequence is proprietary.
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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.

Background

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.

References

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