

KV1.5 Polyclonal Antibody

Catalog # AP70690

Product Information

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

Additional Information

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| Gene ID | 3741 |
| Other Names | KCNA5; Potassium voltage-gated channel subfamily A member 5; HPCN1; Voltage-gated potassium channel HK2; Voltage-gated potassium channel subunit Kv1.5 |
| Dilution | WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications. |
| Format | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| Storage Conditions | -20°C |

Protein Information

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| 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

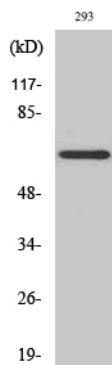
Tissue Location

Pancreatic islets and insulinoma.

Background

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](#)).

Images



Western Blot analysis of various cells using KV1.5 Polyclonal Antibody diluted at 1 : 500

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.