abcam

Product datasheet

Anti-KCNA5 antibody ab110469

1 Image

Overview

Product name	Anti-KCNA5 antibody
Description	Rabbit polyclonal to KCNA5
Host species	Rabbit
Specificity	ab110469 detects endogenous levels of total KCNA5 protein.
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide derived from an internal region of Human KCNA5 (UniProt ID: P22460).
Positive control	Extracts from 293 cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 0.88% Sodium chloride, 50% Glycerol
Purity	Immunogen affinity purified
Purification notes	ab110469 was affinity purified from Rabbit antiserum by affinity chromatography using epitope specific immunogen.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab110469** in the following tested applications.

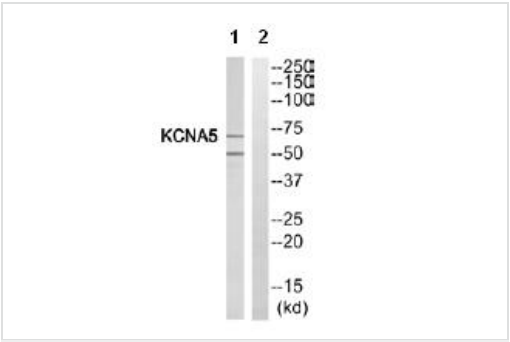
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 67 kDa.

Target

Function	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.
Tissue specificity	Pancreatic islets and insulinoma.
Involvement in disease	Defects in KCNA5 are the cause of atrial fibrillation familial type 7 (ATFB7) [MIM:612240]. Atrial fibrillation is a common disorder of cardiac rhythm that is hereditary in a small subgroup of patients. It is characterized by disorganized atrial electrical activity, progressive deterioration of atrial electromechanical function and ineffective pumping of blood into the ventricles. It can be associated with palpitations, syncope, thromboembolic stroke, and congestive heart failure.
Sequence similarities	Belongs to the potassium channel family. A (Shaker) (TC 1.A.1.2) subfamily. Kv1.5/KCNA5 sub-subfamily.
Domain	The amino terminus may be important in determining the rate of inactivation of the channel while the C-terminal PDZ-binding motif may play a role in modulation of channel activity and/or targeting of the channel to specific subcellular compartments. The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position.
Post-translational modifications	Sumoylated on Lys-221, and Lys-536, preferentially by SUMO3. Sumoylation regulates the voltage sensitivity of the channel.
Cellular localization	Membrane.

Images



Western blot - Anti-KCNA5 antibody (ab110469)

All lanes : Anti-KCNA5 antibody (ab110469) at 1/500 dilution

Lane 1 : Extracts from 293 cells

Lane 2 : Extracts from 293 cells, treated with synthesized peptide

Lysates/proteins at 30 µg per lane.

Predicted band size: 67 kDa

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